310.6
MA
1903/4

REMOTE STORAGE

TRANSACTIONS

OF THE

MANCHESTER STATISTICAL SOCIETY.

U.S. DEPT OF AGRICULTURE
RECEIVED
FEB 1 1905
DIVISION OF FOREIGN MARKETS

MANCHESTER STATISTICAL SOCIETY

SESSION 1903-1904.

AND INDEX.

JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER;
29 & 30, SHOE LANE, LONDON, E.C.

THE MANCHESTER STATISTICAL SOCIETY.

(Established 1833.)

Officers for Session 1903-1904.

President:
FREDK. MERTTENS.

Vice-Presidents:
E. J. CARLISLE, M.A. | F. BROCKLEHURST, M.A.

Treasurer:
JOHN MATHER.

Honorary Secretaries:
THEODORE GREGORY. | HERBERT HEAPE, M.A.

Auditor:
THOS. C. MIDDLETON, J.P.

Librarian:
CHARLES W. SUTTON.

Ordinary Members who have passed the Chair:

ROBERT MONTGOMERY.
EDWIN GUTHRIE.
W. H. S. WATTS.
Rt. Rev. Dr. L. C. CASARTELLI.
ELIJAH HELM.
THOS. B. MOXON.
GEORGE H. POWNALL.
Prof. A. W. FLUX, M.A.
Sir W. H. HOULDSWORTH, Bart., M.P.

Ordinary Members of the Council:

A. H. BOOTH.
W. BUTTERWORTH.
Prof. S. J. CHAPMAN, M.A.
NOAH KOLP.
JAS. NIVEN, M.A., M.B.
JAMES OSTLER.
F. SCOTT.

Trustees

W. H. S. WATTS. | E. J. CARLISLE, M.A.
THOMAS B. MOXON.

TRANSACTIONS

OF THE

MANCHESTER STATISTICAL SOCIETY.

SESSION 1903-1904.

AND INDEX.

JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER.
29 & 30, SHOE LANE, LONDON, E.C.

*** The writers of papers are alone responsible for the statements of fact, and for the opinions contained in their respective communications.

CONTENTS.

	PAGE.
Productivity, Protection, and Integration of Industry. By Mr. FREDERICK MERTTENS, President of the Society	1-67
The History and Development of the Manchester School Board. By Mr. C. H. WYATT, M.A.	69-87
Some Problems of Local Government. By Mr. F. BROCKLEHURST, M.A.	89-108
The Work of the British Cotton-Growing Association. By Mr. J. ARTHUR HUTTON	109-138
Value and Comparability of English and German Foreign Trade Statistics. By Barnard Ellinger	139-158
The Garden Village of the Small Holdings Association. By Mr. JAS. LONG	159-174
Report of the Council, 1903-4	175
Statement of Receipts and Payments, 1903-4	177
List of Officers of the Society, 1903-4	178
List of Past Presidents	179
List of Members, June, 1904	180
Index to Transactions	185

U.S. Agric. Dept. Lib. 8 1903/04

Digitized by the Internet Archive
in 2014

https://archive.org/details/transactions1903manc

MANCHESTER STATISTICAL SOCIETY.

Productivity, Protection, and Integration of Industry.

By Frederick Merttens, President of the Society.

Read Nov. 11th, 1903

In a paper I ventured to put before the Society in April, 1901, I showed in detail the relative retrogression of our own and the progression of the trade of our competitors; and the error of the imperialistic idea that trade followed the flag—that extension of territory had not meant greater prosperity at home, but only increased responsibility, expenditure, taxation, cost of living, cost of production, and a decrease in ability to compete with our rivals.

Whilst deprecating a feeling of panic, I asked for a thorough overhauling of our position, a stocktaking, and summarised the dangers confronting us as follows:

(1) The lack of vigour and intelligence in public opinion.

(2) The inadequate education of the people.

(3) The diminishing resources in coal, iron, and other mineral deposits.

(4) The scarcity of labour.

(5) The obstruction of trade unions to industrial progress.

(6) The excessive foreign food supply and the decline of agriculture.

(7) The want of organisation of the industrial forces to meet the collectivism of our competitors.

Since then foreign competition has encroached still further on our trade, invaded new fields of our industrial activity, and,

through consolidation of interests, assumed a more formidable character in international trade. Disappointed with the results of the South African War, irritated by the humiliating reports of the War Commission and the rise in prices of commodities and taxation, the nation has grown uneasy and anxious. The proposal to reverse the fiscal policy of the country, under which it has enjoyed such marvellous prosperity during the last 50 years, must be considered the direct outcome of this anxiety. This proposal, however, has added considerably to the perplexity of the people.

The "man in the street" admits he does not understand the subject, but thinks it "outrageously unfair" that foreigners should be allowed to undersell English labour, whilst the Englishman is barred from selling his production by high duties in their markets. A clearer appreciation of the present economic conditions of international trade competition is necessary before the nation can be expected to give a correct verdict; and it is much to be regretted that the "inquiry" should have become a "raging political controversy," in which clap-trap catchwords and appeals to popular sentiment and prejudice take the place of sound reasoning.

Never before were statistics used so extensively, so recklessly, and to so little advantage. In vain do economists point out that comparisons of values of exports and imports, either singly or together, are misleading; that comparisons of wages, prices of food stuffs, savings banks, and other returns, in different countries are by themselves of little value.

Merrily proceeds the discussion thereon! Some orators make reckless disparaging remarks about the dietary and starvation wages of our neighbours, in order to belittle their competition; others propose to raise "our standard of life" by imitating the taxation of our neighbours, which must raise the cost of living.

Whilst one side maintains that protection has assisted our competitors in developing great industries and attaining great prosperity, and is used now to destroy our unprotected trades; the other side is content with old time-worn arguments, and ignores the fact that political and economic theories propounded

60 years ago have been modified by the changed conditions of labour and capital, and by the gradual elimination of competition and individual bargaining. The inevitable effect of monopoly—the monopoly of the foreign trade which we enjoyed up to 30 years ago—has come to pass with us. The lessened necessity decreased the intensity of application and the capacity for work, but increased the love of recreation and sport. Foreign nations, much later in industrialisation, had, however, the high proficiency of English production constantly before them. It filled them with admiration and envy, and stimulated those intellectual efforts, that energy and enterprise, which have beaten us now in many fields of industrial work. Those efforts will not slacken. Every civilised nation is recognising the economic advantage of industrialisation, and is striving to develop an export trade. The stimulus which was wanting in our case is not, and will not, be wanting in any other nation.

Free trade alone will not remove our difficulties; but it is an important factor making for cheap production and the maximum of well-being of the greatest number, and as such cannot be discarded.

A discussion on Productivity, Protection, and Integration of Industry will have to pass along some well-beaten tracks, and will necessitate the reiteration of ordinary home truths and obvious arguments. In these there can be no originality, but their statement will give the members of the Society an opportunity of discussing our industrial position and the remedy proposed, and may lead to a clearer appreciation of our difficulties.

A nation evolving from the agricultural and handicraft state to industrial production is dependent on imports and exports. These are not paid for in money, but are transactions of exchange settled by international trading. Imports are paid for by exports, interest on capital, and repayment of capital invested abroad. To import—buy, we must export—pay. "Les produits ne s'achètent que par des produits." *

* J. B. Say.

Take a concrete transaction:—

	£
A Manchester merchant exports in cotton goods to his Calcutta House	1,000
Shipping charges, freight, and insurance	30
The cotton goods are sold at a net profit over working expenses of	100
Jute goods forming a regular article of export from Calcutta and Argentina requiring these goods for wheat bags, the proceeds are remitted in jute goods to Buenos Ayres in an English steamer earning freight £120, less ship's expenditure abroad £15	105
The jute goods are sold in Buenos Ayres at a profit of	100
And the total is remitted to England in an English ship earning freight £130, less ship's expenditure abroad £17	113
In the shape of wheat totalling to	£1,448

We have thus, under free trade, an import of wheat of £1,448
Against an export in cotton goods of £1,000

This is, of course, an exceptionally favourable case, as the profits and freights earned do not always appertain to British capital. The earnings of our carrying trade abroad are estimated, however, at £90,000,000 per annum, whilst the interest on our foreign investments, according to Sir Robert Giffen, amounts to a similar sum. These two amounts render an excess of imports over exports necessary. A roundabout international transaction of the above character, however, is not only to our advantage, but both India and Argentina are benefited by the transaction—the one by receiving cottons which she requires and selling jute goods which she has to spare, the other receiving jute goods which she wants and selling her surplus wheat. Thus imports and exports are exchange transactions pure and simple, of benefit to all parties

concerned; and if we eliminate for a moment the political element, and look at them from a commercial point of view, it seems opposed to the instinct of a nation, which once called itself the shopkeepers of the world, to give in cotton goods £1,072 8s.,* under protection, instead of £1,000, under free trade, in order to get back the same amount of wheat.

An interference with freedom of trade can only be justified by increasing thereby the well-being of the greatest number, and the productivity and stability of prevailing industrial conditions.

Industrial productivity depends on—

(1) Land and its natural resources.

(2) Population: their number; their capacity for work; their intelligence, knowledge, enterprise, and powers of organisation; their capital; their means of transport; and their laws.

In a small country such as England, the maximum of well-being and a high productivity and stability of industrial conditions, can only be attained under free trade; since it stimulates imports and exports, and since industrial production, to be profitable, requires a large market and a steady demand. Consequently in small industrialised countries under protection we find—

(1) A low productivity of labour.

(2) A confined outlet.

(3) A risk of over-production and of interruption of demand.

(4) A difficulty of disposing of the surplus production; and

(5) Great poverty of the mass of the people.

For this reason Spain and Portugal, under protection, cannot enjoy great productivity of industry, though their people are industrious and frugal, many raw materials abundant, their soil fertile, and their climate excellent.

In no industrial country has labour enjoyed such steady employment as in England during the last 30 years.

Occurrences in foreign countries will always react on industries at home, of which the cotton trade this year furnishes an unfortunate example; but protection could not have guarded

* £72 8s., equal to a 5 per cent duty on £1,448 of wheat under protection.

the trade against a deficiency of raw materials and the action of gamblers controlling supply.

The United States has enjoyed great industrial development and great prosperity under high protection. Her vast and varied territories find homes for an industrial population which is growing rapidly through the fecundity of her people and an immigration possessing capacity for work. These territories contain 80 millions of civilised people—a larger number than has ever enjoyed the free exchange of commodities before. Her population grew from 38,558,371 in 1870 to 75.559,258 in 1900; and with her ability to consume increased her ability to produce.

Germany has also shown great material progress under protected industrialisation. Since her political unification and the removal of antiquated restrictions her population grew from 40,500,000 in 1870 to 56,367,178 in 1900. Her industrial productivity developed rapidly; but, owing to a restricted market under protection, over-production followed, and brought about a crisis which forced her to dispose of the surplus production at ruinous rates elsewhere.

In the United Kingdom we notice during the same period also an expansion of productive activity, but a slower growth of population—from 31,484,661 in 1871 to 41,454,262 in 1901—accompanied by a relative weakening of industrial productivity. Free trade saved her, however, from the calamity of over-production. She produces for the whole world—exchanges her commodities on the best terms for the commodities of other nations;—with the result that there has been no over-production, no necessity to slaughter below cost, no taxes on the home consumer for bounties to minimise the loss on the foreign trade. Free trade made for the maximum of welfare of her people, and gave a greater stability to production and employment.

German economists and statesmen are fully aware of the great disadvantage of the limited home market of their 56 millions, which are increasing at a slower ratio than the 80 millions of the United States. The efforts of Germany to form a Continental Customs Union spring not from a desire for territorial expansion, as frequently interpreted in England, but from

an irksome economic pressure. Germany, under present political conditions, cannot rid herself of protection, but she feels acutely her economic limitations. "A policy may be expedient and even necessary at a given time, but conditions may arise which make it unsuitable for another period." Under conceivable conditions, we might find it expedient to limited protection, as securing an increase of well-being of the greatest number.

If the plan of a Central and Western European Customs Union could be realised, giving absolute free trade to 260 millions of highly-civilised people of great productive and consuming powers and similar requirements, it would be to the advantage of England to agree to limited protection, provided the Customs Union were otherwise impossible. The disadvantage of protection would be outweighed by the advantage of the larger free trade community. Such a union is, however, outside the region of practical politics, as nations still look upon each other as enemies. They will tax themselves so that they may be able to injure others. On the other hand, we have the proposal of a closer union with our colonies, based not on absolute free trade between mother country and her colonial children, but on the maintenance of the colonial tariffs against our productions, and a tax on the food we consume and the raw materials we require and import from other countries. This would mean a great lowering of our industrial productivity, brought about by the higher cost of production and cost of living, not compensated for by a greater free trade market amongst civilised and productive people. The British Colonies have a population of 320 millions, against 260 millions in Central and Western Europe. The foreign trade of the colonies amounts to £1. 15s. per head, whilst the Central and Western European foreign trade is £10. 5s. per head.

The self-governing British Colonies, including the Transvaal and Orange River, have a total population of 14,000,000. The foreign trade of these colonies amounts to £19. 5s. per head. It would be impossible, however, to leave the other colonies out of the suggested Customs Union without endangering the position of the Empire. India is practically a free-trade colony, and to exclude her from the preference accorded to the self-governing

colonies would neither be just nor wise, and would give the greatest encouragement to her strong protectionist element. To include her in the Customs Union would nullify the benefits expected by the other colonies, and lead to considerable friction between the different members of the Empire.

In progressive countries population and industrial productivity move in the same direction.

The following shows the increase in population in millions:—

					Increase in 10 years.
United Kingdom.....	1891	37·7	1901	41·4	9·9 per cent
Germany	1890	49·4	1900	56·4	14·0 per cent
United States	1890	62·6	1900	75·5	20·6 per cent
France	1891	38·1	1901	38·6	1·2 per cent

whilst we have the following increase in the foreign trade of these nations—average in millions:—

					Increase in 10 Years.
United Kingdom.....	1882/1891	£634	1892/1901	£695	9·6 per cent
Germany	,,	329	,,	416	26·7 per cent
United States	,,	301	,,	376	24·8 per cent
France	,,	312	,,	309	minus 0·9 per cent

If under free trade we perceive a relative weakening of our industrial productivity and a slower growth of our population to those of Germany and the United States, we should, if shut in by tariff restrictions, witness a rapid decline. We should be reduced to the position of France, who, under protection, but with a Customs Union based on preferential trade with her rich colonies, increased but slowly in population, and actually declined in her foreign trade, thus showing a serious falling off in industrial productivity. A Customs Union with colonies of low producing and consuming capacity, not based on absolute free trade, could not make for that increase in well-being of the greatest number, and in productivity and stability of industrial conditions, which we must consider necessary to justify any change in our fiscal policy.

Nature's gifts are limited in all countries. We have only a limited area in which we can grow corn, a limited supply of natural raw materials in minerals, coal, etc. The limit gets narrowed if soil and mines are to be worked at a maximum of productivity.

A country which can supply the whole of its requirements in natural raw materials, foodstuffs, and minerals from its own area, or nearly so, at a lower cost than they can be procured from elsewhere, reaches, as far as raw materials are concerned, the maximum of productivity.

In the United States iron, copper, and other ores, coal, etc., abound; her soil and climate produce foodstuffs, cotton, and other commodities at a lower cost than others can grow them. The most profitable trade a country can have is the export of the surplus over its own requirements in agricultural products which, under cultivation, can be replaced without exhausting the soil. The surplus exports of agricultural products partially explain the great prosperity of the United States. The exports of agricultural products are: United States, £181,000,000; United Kingdom, £16,400,000; Germany, £28,500,000.

To England and Germany imports of foodstuffs and raw materials for their industries are a necessity. They must export to pay for them. Both countries are labouring under "diminishing returns" in natural raw materials. The acreage on which corn can be grown, and the mines out of which coal and ores can be extracted at a lower price than elsewhere, have sunk below the possible maximum. The productivity in natural raw materials in both countries is not as great as in the United States, and no protection, however high, can make good the deficiency. To produce more corn, more iron ore, more coal, we should have to bestow more labour per unit of production on it; in other words, we should have to increase its cost of production, and with this we should diminish the productivity of labour. Coal in 1898 cost in the United States 4s. 5d., in the United Kingdom 6s. 4½d., in Germany 7s. 4½d. per ton. The output of coal per collier was: United States, 490 tons; United Kingdom, 291 tons; Germany, 269 tons.* The productivity was greatest in the United States, much lower in England, lower still in Germany. To produce more coal Germany would have to work at still lower levels, increasing the cost of production, diminishing the output

* Board of Trade Return.

per collier employed, and decreasing the possible maximum of productivity of labour. In America the coal deposits are so easy to work and so plentiful that the cost per ton is still decreasing, with an increase of production per head.

The possession of cheap iron ores and coal deposits enabled us to become the industrial workshop of the world. Under the stress of our great industrial production, the output of iron ore has been decreasing; that of coal has also reached such dimensions that "diminishing returns" will overtake us. Coal is cheaper now in America than with us; we cannot, however, buy it and lay it down at as low a price in England as we can produce it.

Our corn production has decreased considerably under the same "law of diminishing returns." There were under cultivation other than grass in 1874, 18,088,913 acres, which declined to 15,709,351 acres in 1900, whilst the number of animals changed as follows:—

	1874.		1900.
Horses	1,311,379	.....	1,500,143
Cattle	6,125,491	.....	6,805,170
Sheep	30,313,941	.....	26,592,226
Pigs	2,422,832	.....	2,381,932

There were employed in agriculture 1,423,854 people in 1871, against 988,340 in 1901. Cash wages of agricultural labourers during this period rose from 11s. 10d. to 14s. 7d. per week; whilst the prices of food consumed in a workman's family fell over 30 per cent.

The following table gives average yield per acre and average price per imperial quarter of wheat for the United Kingdom:—

Periods of 8 years.		Average Yield per Acre in Bushels.		Average Price per Imperial Quarter. s.	d.
1860/61 to 1867/68	..	$28\frac{3}{8}$	...	51	11*
1868/69 ,, 1875/76	...	$26\frac{3}{4}$	...	51	10
1876/77 ,, 1883/84	...	$24\frac{7}{8}$	...	44	11
1884/85 ,, 1891/92	...	$29\frac{3}{8}$	...	31	11
1892/93 ,, 1899/1900	...	$30\frac{7}{8}$	...	26	11

* In years 1860/63 there was an Import Duty of 1s. 0d.
In years 1864/69 there was an Import Duty of 1s. $0\frac{3}{4}$d.
In years 1870/1900 free.

The yield per acre increased and the price of the product declined, whilst both cash wages and real wages—the purchasing power—improved considerably, denoting a greater productivity and a decrease in cost of production.

"Wages fall and rise with the productivity of labour, and move in the opposite direction to the cost of production."*

Landlords suffered through the decline in rents, but labour and consumers benefited, and the well-being of the whole improved.

Labour previously employed in agriculture has been deflected to more profitable occupations. If, under protection, we increased the production of wheat by the cultivation of less fertile soil, we should do so under an increased cost of labour, and injure the productivity of labour in the more profitable industrial pursuits, and thus the productivity of the whole would suffer. Free trade allows us to employ our labour to the best advantage on the production of commodities we can do cheaper and better than others.

The proof of the increase in productivity and well-being of the nation, under this deflection of labour from unprofitable to profitable trades, is found in the following returns of the United Kingdom:—

PAUPERS, exclusive of vagrants:—

1879	1880	1881	.....	1899	1900	1901
In thousands.			.....	In thousands.		
989	1,037	1,011	.....	1,012	1,001	992
Average 1,012,000, or 29 per 1,000 inhabitants.				Average 1,002,000, or 24 per 1,000 inhabitants.		

CRIMINAL OFFENDERS, convicted:—

1879	1880	1881	.....	1899	1900	1901
16,822	15,643	15,883	.....	11,865	11,082	11,934
Average 16,116, or 4·6 per 10,000 inhabitants.				Average 11,627, or 2·8 per 10,000 inhabitants.		

* Dietzel, "Produzenten Interesse der Arbeiter und die Handelsfreiheit."

UNEMPLOYED.*

	Number of Societies making returns.	Membership.	Average in Receipt of Unemployed Benefit.
Dec., 1893, to Nov., 1894.	48	356,413	6·9 per cent.
Dec., 1900, to Nov., 1901.	142	543,677	3.7 per cent.

Previous returns too small to be of value.

If further proof be wanted, we find it in the advance of wages during this period, taking 100 for the year 1900 as the standard of comparison, and excluding agriculture:—

1879-1881 ..... 81·82 1899-1901 ..... 97·87†

But the possession of cheap and abundant raw materials is not the only factor making for great industrial productivity.

The Lancashire cotton trade has not got this advantage, but under free trade it has retained its pre-eminence in spite of the geographical disadvantage, the cost of transport, and the keen competition, both native and international, in all markets. Far from the source of supply of its raw material, hemmed in by heavy tariffs on all sides, Lancashire, with shortened hours and high wages, if not progressing, holds its own fairly well. Its exports are £72,000,000 and its home consumption £22,000,000 of finished product, whilst the value of the raw cotton used in manufacture amounts to only £35,000,000.

Six reasons account for this great productivity:

(1) Free trade, and being first in the field, enabled England to build up a large trade in cotton goods before other countries became industrialised; the energy and enterprise of her people at the same time prompting her to increase production to meet the demand of the world. This led to large-scale manufacture, the greatest factor in cheapening production—as Professor Schulze Gaevernitz puts it: "The necessity of cheapening production requires an increase in the quantity produced."

(2) The skill and nimbleness of the English cotton workers, which are greater than those of any other textile workers in the world.

---

* *Labour Gazette.*

† Board of Trade Returns.

(3) The inventive genius of the practical men engaged in this trade, who, through long experience and inborn adaptiveness, perfect the most important inventions and improvements in mechanical appliances, as substitutes for human labour.

(4) The low cost of machinery and accessories, due to large scale production, possible only under free trade.

(5) The regulation of piece-wages by agreement between employers and employed, which ensures to the latter a proper reward for every improvement in the industry, and gives encouragement to assiduous and intelligent workers.

(6) The adoption of methods of conciliation to avoid the economic waste of strikes and lock-outs, justly described by Professor Ashley as "the greatest triumph of common sense the industrial world has yet seen."

By standardisation, and the more rapid introduction of automatic looms, the American cotton trade has beaten us in certain goods; the Continent is frequently outstripping us in better colours and higher finish; but for the bulk of the world's requirements in cottons England is supreme. Under free trade she is overcoming all other disadvantages; under protection her large scale industry would become restricted in outlet, followed by an increased cost of production, depression, and loss of productivity.

Industrialisation has brought about an enormous saving in labour, resulting in an increase of wages and prosperity, and improvement of national well-being.

Each new device, each new labour-saving machine, each improvement in organisation, each economy in production and distribution, works to the same end. "The productivity of labour is increased, and the well-being of the nation, as a whole, improved." Working under an antiquated system, with machinery below the highest standard of productiveness, or restricting the possible output of labour by trades-union regulations, means an injury to the nation, a lowering of productivity.

The productivity of labour can thus be augmented by intelli-

gence, knowledge, enterprise, industry, and organisation, and, as they increase, the cost of raw materials becomes a diminishing factor in the cost of the finished product. Thus, though subject to the "law of diminishing returns" as regards natural raw materials, we need not lose our pre-eminence if we make good the deficiency by increasing the productivity of our machine production, through greater industry, skill, and knowledge in the utilisation of all the elements of production, raw materials and labour. Mechanical production falls under the "law of increasing returns." The more we produce in a given time, the lower the cost per unit. It costs less to produce with one machine in a week 150,000 yards of prints in Fall River than 30,000 yards in Manchester in the same time; in spite of labour wages being higher and protection rendering drugs, dyes, and finishing materials dearer.

A home demand for 80,000,000 people of similar requirements and high consuming power enabled American industries to extend the scale of manufacture, increasing the product, cheapening the cost, and augmenting the productivity of labour. The greater the population consuming the same kind of goods, the easier to produce on a large scale, the easier to cheapen the cost of production.

Mr. T. M. Young, in *The American Cotton Industry*, says: "The American calico printer is able to run his machines longer on one pattern than ours can because the American market for prints can absorb larger quantities of one pattern than our markets. In the first place, the American prints almost exclusively for his home market—the bulk of what he sells abroad is the surplus of his home production—whereas we print for the whole world, and every one of our markets has its own idiosyncrasies of taste. Then, the American home market is, for special reasons, exacting in quantity rather than in variety. Nowhere else is there such a market for prints. . . . . When you consider further that this population is spread over an area of 3,500,000 square miles, making the United States still one of the most sparsely populated of civilised countries, the sufficiency of a comparatively few patterns is readily understood."

The loss in productivity through protection is made good in the print trade at Fall River—

(1) By large scale manufacture, which we have not been able to attain in calico printing, owing to the great variety of tastes we have to meet. Our productivity would be further reduced by a check on our freedom to trade with the whole world.

(2) By better organisation of production and distribution, and the greater intensity of application of American labour, machines running faster and without stopping from 7 a.m. to 5 p.m.

Raw materials under the division of labour are, however, not only the products of the soil and the mineral wealth of the earth, but all materials used in industrial production. What is the finished product of one trade becomes the raw material of another; seed is the raw material of the farmer, corn of the miller, flour of the finisher and sizer of yarns and textiles, cotton yarn of the cotton cloth manufacturer, cotton cloth of the calico printer, printed cottons of the garment maker, and so on in all other trades. If we desire to give labour an opportunity of making good the disadvantage under which we work through no fault of our own—the diminishing raw materials—we must not accentuate the difficulty by putting taxes on commodities which we require in our manufacture, and which we can buy cheaper abroad than at home.

Industrial productivity depends, further, on the capacity for and application to work. A weak, debilitated race, an indolent people, cannot produce at the same cost as an energetic, well-fed, strong nation; their productivity is lower. The greater the requirements of a people, the greater their incentive to increased exertion and activity. Incentive to reward becomes ineffective in a people with few requirements through a low state of civilisation; or when labour has enjoyed long prosperity and imposed corporate restrictions on individual industry, which discourage aspirations to a higher standard of life. Both conditions imply a lower productivity to that of labour with great requirements and an intense ambition to rise higher.

The industrial productivity of India is low. Her labour is physically poor, its skill and intelligence is not high, it has few requirements, and receives a low reward. India consumes per head of population 6s. 2d. in total imports. As her population becomes industrialised, as skill, intelligence and technical knowledge increase, new wants will spring up, and with these an increase of productivity will take place. With the wish to possess the products of other nations will come the power to produce the commodity required in exchange. The introduction of spinning and weaving by machinery into India increased the volume of her trade. She imported in 1868-75 Rs. 43,14,49,650, but in 1901-2 Rs. 109,33,37,226; and exported in 1868-75 Rs. 57,37,96,110, and in 1901-2 Rs. 136,36,55,904.

Her ability to consume grew with her industrialisation. The supply of our machinery, cottons, and other industrial commodities stimulated the production of wheat, jute, cotton, and other commodities in India, and this increased productivity re-acted as a stimulus on our industries.

New industries created by the requirements of man, and his desire to satisfy them, are constantly springing up. Jute, indiarubber, palm oil, tropical fruits, and other commodities previously not imported into this country, are thus sent to us to satisfy the requirements which arise through our ability to produce cheaply. These imports in their turn again stimulate our activity and productivity. Each lowering of cost of the mechanical product widens the range of customers desiring the same. A check on the importation of commodities, which other nations desire to exchange against our industrial products. will narrow the circle and lower our own productivity. With an increase in the exchangeable goods we produce comes an increase in imports of commodities from other countries.

The productivity of Germany is great. Under the "law of diminishing returns" she cannot grow all the food and produce all the raw materials for her industries as cheaply as she can buy them. She has to import a large portion of the food for her people, and enhances its cost through protection; she imports, like ourselves, iron ores and the raw materials for her textile

trades, and labours under greater geographical disadvantages. Her labour is physically as good as ours; the training received in the army is of economic value to the nation, as it develops the muscular power and capacity for work; quickens the intelligence, the observation, the energy and the ambition; instils frugality, discipline, and cleanliness in person and work, and all these react on the private and industrial life of labour, and increase its productivity.

The high birth rate, the abundance of children, speak for the vitality of the nation. The education of the people is high, the wish for it is imbued in all classes of society. Parents deprive themselves of necessaries of life to secure the best education for their children. Education has stimulated the aim and ambition, the energy and enterprise of labour. Knowledge and scientific training possessed by a large proportion of the people are constantly applied to the solution of the great problem of industrial production, the cheapening of cost. The trained mind of the German is conquering obstacles imposed by nature, and is overcoming the great disadvantages which hamper the industrial development of the nation. Germany consumed in imports from the United Kingdom in 1880-1, £17,100,000; in 1900-1, £25,800,000; in total imports in 1880-1, £144,600,000; in 1899-01, £292,200,000. With her progress in industrialisation has grown her ability to consume; her prosperity is a benefit to all the world, but more particularly to English industries, which under free trade find in German production cheap materials for their more finished trades, and an increasing market for their own commodities. The cheaper steel plates of Germany have resuscitated the lingering tin-plate trade of Wales, have secured many a foreign and home contract for ships and machinery which otherwise would have been lost.

The opinion that Germany is much behind us in industrial productivity and social progress, and that her exports and competition in international trade are due to bounties or rebates, is so general that it will be well to record the impressions of an American observer* who visited Europe to see which country offered the best opportunities for an American invasion:

* "The American Commercial Invasion of Europe," by Frank A. Vanderlip.

"The Germany of thirty-five years ago bore almost as little relation to the Germany of to-day as did some portions of the United States to our present condition.

"A great plain covering the entire north and east of the country, where small crops were grown at high cost and with great labour; a table-land in the south almost as barren; a few seaports, in only two of which was there entrance for vessels of the deepest draught; a large system of shallow rivers; fertile valleys in the south and west, but covering not over one-tenth of the area of the country; large deposits of low-grade iron ore; a coal area limited in extent, with deep-lying seams, from which came a product of poor quality; small deposits of copper, lead, and zinc; a large forest in the south; a small commerce; a manufacturing industry hardly worthy of the name; a disordered currency, a disorganised banking system, a deranged financial system, a confused foreign policy; a people divided into twenty-three States with only the tie of a common customs union, the coercion of the Prussian hegemony, and a common language and literature—such were the materials of thirty-five years ago, out of which modern Germany was to be constructed.

"A population numbering 56,000,000, firmly united into a great national State; a system of internal communication the second largest in the world; a foreign commerce inferior only to that of England and the United States; a system of industry which has utilised to the full every resource the nation possessed, which has brought the waste places under cultivation, and by careful methods of scientific agriculture has developed the yield of the soil more than threefold, creating *de novo* the beet sugar industry; a system which has quadrupled the production of coal and tripled the production of iron; which has developed the greatest chemical trade, the second largest electrical industries, the third textile, iron, and steel industries, and the second shipping system of the whole world; which has tripled the city population, reduced a large and threatening emigration to insignificant proportions, raised wages, increased the value of land, and tripled the revenues of the State; a strong, self-reliant, progres-

sive, prosperous nation—such is modern Germany, the result of thirty years of nation building.

"Never before in the industrial history of the world, unless we except the victory of the same race in the Low Countries over the waves and tides of the German Ocean, has such success been achieved against such heavy odds. England has succeeded, but England was never cursed by invasion and civil war. England's soil is fertile. Her coasts are indented with fine harbours. Her security made her the home of the great inventions, and those inventions gave her the commerce of the world for more than three-quarters of the nineteenth century. The United States has succeeded, but the United States was blessed with the richest heritage of natural wealth that ever fell to the lot of any people. Planted in the midst of a continent, with a soil of extraordinary richness; with the coal seams lying open on the river banks, and iron only needed to be quarried from the surface; with river systems penetrating every part of the country, and a chain of lakes to supplement the rivers; with great harbours to receive and send out foreign trade, and with the hungry multitudes of Europe in sore need of our surplus—with all these natural advantages, and with only one serious catastrophe to our national development for eighty years, it is no wonder we have succeeded.

"Germany had none of these advantages. Germany must needs dredge her seaports, deepen her rivers, supply her deficiencies in raw material by importation, import the machinery for her factories, and the technical skill to direct the machinery; build a railway system to carry her manufactured goods long distances to the sea-coast; and when she has done all this must fight her way into markets which England and France had long since occupied. To do all this while guarding against invasion on both frontiers, and bearing a heavy burden of taxation and military service—to succeed with no other aids than those of the national genius for hard work and the national ambition for a great and commanding place among nations, and to win such success in the face of such difficulties, is an achievement before which both England and America should uncover in admiration

and surprise. If the measure of success which a nation achieves over adverse circumstances is the test of greatness, then Germany is the greatest nation in the world.

"But in Germany we find not only a State with apparently a great future, but a State which has begun to realise that future in a thoroughly modern way. The system of education—elementary, secondary, and university—certainly rivals, and is probably superior to our own. It is a system which leaves less than 3 per cent of the population illiterate, and sifts out the brightest minds and trains them for the service of the State. The State, in turn, is eager and anxious to avail itself of the services of men who have won intellectual distinction. There is a system of commercial education whose founders realised that successfully to deal with foreigners requires a speaking and writing knowledge of their language. There is a national and municipal administration which in their effectiveness and absolute integrity must bring shame to the resident of almost any American city when he compares them with conditions surrounding him at home. The Government has encouraged commerce and foreign trade with great intelligence. It has established the gold standard, and so organised the Reichsbank that the mechanism of exchange has the foundation of secure confidence. It has aided in the establishment of German banks abroad, and placed German traders in the position of distinct advantage in pushing their commercial conquests. A trained consular service has been developed, composed of men who speak the language of the country to which they are sent, and who use the language to find out whatever may be of service to the German exporter.

"In full control of the railway system, the State administration has worked out, very successfully, the basic principles of rate-making, to increase the rates with the value of the freight. It has granted low rates on iron and coal, to which concessions the iron and steel industry of Westphalia owes in large measure its prosperity."

The time may come when we shall have to depend on iron and steel imports for our machine and engineering works. It

would be an economic loss to the country under protection to employ labour in producing pig iron and steel, when we can buy them cheaper abroad under free trade, and can deflect this labour to the production of higher-class goods at a profit.

The general productivity and well-being will be increased if we confine our energies to the production of those goods which we can produce cheaper and better than other nations, and exchange these on the best terms—free trade—for the productions which they can make cheaper and better than ourselves. To employ labour, under a tax falling on the whole community, on the production of commodities which others can produce cheaper than ourselves would waste the national substance and lower the productivity of the whole. What we have to guard against is not the import of cheap foreign materials, but the loss of energy, skill, intelligence, and efficiency which would prevent the utilisation of such materials for the manufacture of higher-class goods.

Protection would not stimulate skill, intelligence, and industrial efficiency, but act as a distinct deterrent to progress, and as such would reduce our ability to use the cheap imports for the manufacture of higher productions, and seriously injure the productivity of the whole nation. Up to now, whatever labour has been dislocated by foreign imports has found profitable employment elsewhere, and the productivity of the whole has not suffered. There are, however, a great number of trades which would have developed at home had we possessed the necessary scientific training and intelligence; and their development would have added materially to our productivity, and brought about a rise of wages.

The more trades we develop at home, under free trade and international competition, the greater our productivity, and the more rapid the advance in wages.

Every true patriot regrets the decline in our agricultural population from which the stalwarts of that industrial army were drawn which conquered the trade of the world—regrets that a larger proportion of our food is not grown at home.

The cultivation of the poor soil which has been laid down into pasture would have been an economic loss as long as pasture paid better; but if our farmers would but profit by the educational opportunities offered to them, and would learn to combine and organise and stop the scandalous waste of human labour of their present methods, agriculture would, under free trade, be turned into one of the most profitable industries of the country.

The mutual credit associations and agricultural banks, the co-operative dairies and creameries, and poultry farms, the co-operation in buying and marketing have produced economies in agricultural production abroad which enabled foreigners to send us:

	£
Eggs	6,308,985
Butter	20,526,690
Bacon	13,426,967
Hams	3,858,902
Poultry	1,059,044
	£45,078,000

All these articles, totalling to £45,000,000 per annum, we should be able to produce cheaper at home under free trade than they can be produced under protection abroad. Foreign countries give no bounty or rebate on these, and their importation from abroad implies a fault in method, and a lack of intellligence which are seriously injuring the productivity of the whole nation, and of agricultural labour in particular. Anything which can be done to teach the methods of our competitors will increase the productivity and cheapen the cost; and bring about a further rise of wages and a greater demand for the article produced.

Nor can we forget that afforestration would increase the productivity of our soil considerably. Whilst all other countries have given special attention to this subject, it has been neglected by our Government. We import £25,000,000 of timber and wood, whilst the Committee on British Forestry estimated that there are 21,000,000 acres of waste heather and rough pasture or land out of cultivation on which afforestration could with

profit be undertaken. On the Continent it has been found that by scientific forestry a yield of over 20s. per acre per annum can be obtained from forests. The annual profit per hectare of State forests rose as follows:

	Saxony.	Würtemberg.	Prussia.
1860/65	31s.	32s.	9s.
1898/1900	50s.	51s.	16s.

The *laissez-faire* policy of our Government and the lack of scientific knowledge in this matter alone are a serious injury to the national productivity, as it is estimated that 95 per cent of our timber imports could be grown at home. Were we to add the yield of the possible forests to our agricultural production, the productivity of labour would increase, resulting in a fresh advance of wages and general well-being. The persistent attention of other countries to all questions affecting the productivity of the soil, not only by afforestration but by irrigation and transport facilities, are in marked contrast to our policy of leaving everything to individual effort.

The supply of competent agricultural labour is one of the problems of our time which beset the highly protected countries no less than England. It can only be solved by improved social conditions, better education, and co-operation and organisation, resulting in economies of labour in production and distribution, viz., productivity, followed by an increase of wages.

It would be to the advantage of the capital employed in the production of pig iron to prevent the introduction of cheaper foreign iron, and to the advantage of the landlords to stop the importation of cheap eggs, butter, bacon, poultry, etc.; but it is not in the interest of the whole nation to employ its labour in the production of articles in which she is not proficient, as it will not make for the well-being of the greatest number. In a well-ordered community the interest of the few, here ironmasters and landlords, must give way to the interest of the many.

Retaliation, Preference, or Reciprocity, all will result in protection, which must injure the productivity and national well-being. Protection compels the employment of labour on the production

of articles which can be bought cheaper elsewhere, and consequently the productivity of labour is not as great as it might be, whilst under free trade a nation will apply itself to produce those goods in which its productivity is greatest.

In speaking of the competition of other nations, we must not leave out the inroads made on our trade by their productions of articles of greater merit, either in quality, taste, style, or make up. Superior workmanship and quality often outweigh a lower price. Novelties in household goods, hardware, haberdashery, small wares, laces, cotton, woollen, and silk goods, wearing apparel, pottery, glass, used to be brought out by us in our halcyon days; to-day the foreigners often outstrip us in the application of art to the manufacture of these and many other articles.

England imports large quantities of these foreign productions, though very few, if any, are subject to bounties or rebates, and no 10 per cent duty on these articles will keep them out of our market. Their superiority is due to the better technical education and the development of artistic taste of the mass of the people.

Says Sir Swire Smith, in speaking of the woollen industries*: "But I hold the opinion that for years past the French and Germans, in consequence of their superior technical instruction, have surpassed us in the designing, dyeing, and finishing of certain of their goods, and thus while buying more and more yarn from us they were gaining on us in their manufacturing." And, again, in referring to the Royal Commission on Technical Instruction, in 1881, of which he was a member: "Their hours were longer, their wages lower, and they were protected against foreign competition by high tariffs. Yet in those instances in which we found superiority we almost invariably came to the conclusion that we were beaten, not by the apparent advantages above mentioned, but by the superior training of the leaders and, in some instances, of the workmen in the principles of science and art which they were applying to their manufactures. This was

* *Manchester Guardian.*

the Protection—the cultivation of brains—which was enabling our rivals to surpass us even in our own markets—a Protection that no tariff walls can withstand, and which we found that in too many instances we were paying for by buying the product of those who had received it. We cannot hope to keep out of our country the skill and intelligence of the foreigner by protecting the ignorant Englishman; our clear course is to meet efficiency by greater efficiency, knowledge by finer knowledge."

Mr. William Burton, writing in the same paper, on the pottery trade, says: "It is obvious that some other explanation must be found than that we are losing our trade because we are undersold. The houses that have retained their American trade are precisely those houses that have shown energy, enterprise, and adaptability, the houses whose quality is not to be surpassed, if indeed it is to be equalled, in Europe or America, and who have the enterprise to follow the market and meet its constantly changing requirements. It was by such a spirit as this, by such enterprise as this, that the English potter won his way into the first position in the eighteenth and nineteenth centuries, and in no other way can his position be maintained or improved. In the Staffordshire potteries there is still a larger body of technical skill and experience than in any other pottery centre, but that will not serve much longer against the superior training, knowledge, and organisation of our foreign rivals. In other countries the training of the designer, the artist, and the chemist has been proceeding apace, while here, after years of effort, there is apparently not the remotest possibility of North Staffordshire having any adequate equipment for the higher education of the manufacturers, managers, or foremen who are to direct its most important industry. This state of affairs cannot be improved by a tariff on imported pottery, but it can be improved by the potters themselves, and the country surely has a right to demand that before any trade is protected it shall have done everything to help itself."

We imported in cotton goods and yarns from other countries in 1902 £6,128,000, against in 1888 £2,884,000. In hardware and cutlery in 1902 £1,400,000, in 1897 £710,000 (previously not separately recorded); whilst our exports of cotton goods

and yarns rose only from £71,986,000 to £72,458,000, and of hardware and cutlery from £2,104,000 to £2,177,000 in the same periods. This illustrates a great advance in industrial productivity in these goods by our neighbours and the stationary character of our own business. In both trades the increased imports are due to better adaptation of requirements of customers, to better taste and finish, and greater variety of designs and specialisation of manufacture.

The higher and more artistically perfect the article produced, the greater the reward of labour and capital, the greater the productivity.

The man producing matchets at 8d. a dozen does not receive the wage of the man making cutlery at 40s. a dozen. Thus neglect of technical and scientific education has injured the productivity of the nation.

Capital has helped to cheapen the cost by the substitution of mechanical methods of production for bodily exertion, and has given to labour a greater prosperity than it would have attained without. More commodities are produced by less manual effort, others are produced which could not be produced at all without the tools furnished by capital. Thus a great increase in productivity has taken place. We are charged by our competitors that we lag deplorably behind in the application of new inventions and machinery to production, that both America and Germany have outflanked us in this, and that their productivity has consequently increased more rapidly than ours. It must, however, be remembered that it is an easy matter to put the newest machinery into a factory during erection, whilst it is a costly process for an industry hard pressed by competition, to throw out old machinery and replace it by new. There are undoubtedly a large number of old factories that cannot afford to put in new machinery, and that find it increasingly difficult to hold their own. This most unfortunate circumstance makes, however, distinctly against the productivity of England, as it renders the cost of production higher than that of newer countries, equipped with the best machinery. This loss of productivity will further increase under protection, as

protection will enable old machinery to be kept working, which under free trade and international competition would have to be replaced by new.

Profits on capital employed in English industrial production have fallen, owing partly to the enormous increase of capital itself, but more so to the growth of international competition, the increasing intelligence of the people at home and abroad, and the easy communications afforded by telegraphs, telephones, and quick steamship services. The decrease in profits on capital has brought with it an increase in wages of labour and a lowering in price of commodities, making for a greater well-being of the whole. Under protection, however, this changes: capital will prosper by the increase in price of the commodity produced, but the whole will suffer in productivity and general well-being. A lower productivity, however, of labour results ultimately in lower wages, a higher productivity in higher wages.

"Wages fall and rise with the productivity of labour and move in the opposite direction of the cost of production." . . . "The true wages fund is the total product of labour, the more vigorous the increase in the latter, the more vigorous the rise in the income of labour." *

Under equal social and economic conditions we find that higher wages indicate a higher productivity. American productivity is great, the wages are high.

"If the rate of wages governed the cost of labour in each unit of product, not one dollar's worth of any one of these articles could be sent from the United States to any part of the world. . . . High duties upon imports have been advocated in the United States, and have been maintained upon the ground that our high-priced labour could not compete with the low wages of Europe. This fallacy in regard to cost of labour has been refuted by the logic of facts." †

The rich natural resources of the country give a great bonus to the productivity of American labour. Moreover, Americans work with the newest machinery, and use the best methods in

* Dietzel, "Produzenteninteresse der Arbeiter und die Handelsfreiheit."
† E. Atkinson.

organisation of production and distribution. They work longer hours, and throw an amount of energy and intensity into work and business unknown to us. There is no restriction on industry and output by trade unions; the leaders and captains are setting their workmen an excellent example in application and industry.

The restless industry, energy, and capacity for work of American labour, in addition to the abundance of natural wealth, constitute a greater productivity, which fully justifies the higher wages. The serious check which is imposed by protection on the productivity of labour is made good by the greater energy, exertion, the larger country, abundance of raw materials, better organisation and lower transport charges, and lower taxation, which result in a greater productivity of the whole.

Low wages by themselves do not denote a low cost of production, or high wages a high cost of production. German wages are lower in most cases, in some, higher than ours. The silk weavers in Crefeld receive higher wages than their competitors in Macclesfield. Their productivity is greater. Crefeld has driven Macclesfield out of many branches of the silk trade. The British Iron Trade Association found that where German wages were equal or higher than ours the competition of the product was the most dangerous to our trades. The wages in the English cotton trade are higher, the skill and productivity of English cotton labour is greater than the German. Protection has hampered the progress and injuriously affected the productivity of labour in the cotton trade in Germany. She does not beat us in skill or quickness, but in better education, steady industry and application, and in the scientific training and the knowledge of the foremen and leaders of industry.

The *Times* correspondent gives the following typical case of the intelligence of German workmen: "I have seen mechanics working on an engineering order from England and using the original drawing with the English measures. The foreman, on being asked if it would be necessary to turn them into metric values, said, 'Oh, no; the men will work from the English figures all right.' Now, would or could English mechanics do the same?" He describes the German workmen as steady, regular, trust-

worthy, not quick or particularly intelligent, but they do as they are told, and do it well. He describes the German works as cleaner and more orderly, better ventilated, better lighted, and comments on the excellent provisions for washing and dressing accommodation.

The productivity of labour in Germany is also favourably influenced by the effect of the compulsory insurance of workmen against sickness, accident, and old age and infirmity, the burden of which rests on State aid, employers, and the insured workers. It has increased the general well-being of labour, encouraged thrift, and removed the influence of sickness from the household of the workman, and a great deal of bitterness in the relation of employed and employers. £90,000,000 have been paid to German workmen in twelve years as compensation for accidents, old-age pensions, and invalid insurance. The insurance has led further to the provision of sanatoria for the treatment of consumption among the workers, in which some 30,000 cases are treated annually, with the result that 67 per cent of the cases are fully restored to work, 7 per cent dismissed as capable of other occupations, and 14 per cent partly capable of other work. All these measures go to increase the productivity of an industry. The lowering of productivity through protection is made good by education, frugality and thrift, great industry, efficient organisation, cheap transport, and social and industrial progression.

In comparing German and English wages we must bear in mind a number of factors of which domestic economy is probably the most important. As regards the consumption of food, the *Times* correspondent says: "The amount of food bought or consumed is not the same thing as the amount of nourishment extracted from it, which is one of the numerous objections to laying down a standard of quantity as necessary for physical efficiency. Vital processes are far too subtle to be put into a chemical formula; they cannot be judged by results. Having closely observed many thousands of German workmen in and out of the workshop, I can say with

conviction that they are hearty, well-nourished men, and that their children are well kept and well cared for. Parents are very seldom wasteful or self-indulgent. The mothers have the knowledge and the will to make money go as far as possible. The condition of the working classes in respect of food has greatly improved, and their houses and everything else are spotlessly clean. . . . The German women of this class are notable housewives; you always find them hard at work, cleaning, washing, cooking, or sewing; and I think that nothing in German life so conduces to the strength, stability, and well-being of the nation as this. But for the admirable home qualities of the women the housing question would be far more serious than it is." The rapid industrialisation and increase of the German towns have created housing difficulties of the working classes, but government and municipalities, private enterprise, and large employers have set to work with German determination to remedy this evil. The workmen frequently, however, possess their own houses, and plots of ground, which yield an additional income in the shape of vegetables, fruits, etc.

The German savings banks hold more than double the amount of ours. German investments abroad yield over £60,000,000 per annum, practically the result of thirty years' trading, and these figures would hardly indicate that German export trade had been so unprofitable, or that the productivity of labour had been low. Germany has succeeded, in spite of protection and bounties which have checked a greater rise in her wages and lowered the purchasing power of her people, purely and simply through the development of brain power.

Protection, and worse still, protection and bounties or rebate for export, do not add to, but detract from, the wealth and productivity of the nation. Professor Schacht says of the New German Tariff: "The new scheme of Protective duties constitutes, on the whole, a danger for German industrial life. It does not take sufficient account of the existence of the lower classes. Its standpoints are narrow, where contrasted with the problem to be solved, the finding of a plan which will be for the protection of the community as a whole. It does not follow

a policy of natural production, but one of artificial prices. What we have to do is not to guarantee prices, but to find room for those forces of production which are strong in our country."*

And even Professor Schmoller, the great protectionist, admits in criticism of the above, that Professor Schacht is right in saying that the officers who worked out the tariffs are much too fond of protection, and that the organised industrial groups, and especially those which have skilful representatives, have exercised a far too great influence on the tariff—an evil which shows itself in all protected countries.

Here we have one of the inevitable results of protection, the corruption of political influence in favour of privileged trades.

Another high protectionist in Germany, Professor Friedrich List, said: "A nation which has already attained manufacturing supremacy can only protect its own manufacturers and merchants against retrogression and indolence by the free importation of means of subsistence and raw materials, and by the competition of foreign manufactured goods." †

Professors of economics are, however, not the only persons in Germany who protest against the new tariff; the large Socialistic vote at the last election, giving the Socialists the second largest party in the Reichstag, is a direct protest against the protection of privileged interests and the injury it inflicts on the well-being of the greatest number.

"The policy of protection is put into action for the purpose of limiting the working of the principle of free trade. Protection rests upon force, while free trade rests upon liberty. Protection, therefore, attains its purpose only by depriving men and nations of their liberty to supply their wants in the cheapest market, and creates a privileged class endowed with power to pervert public taxation for the purpose of private gain." ‡

We have seen that industrial production, being based on the law of increasing returns, has a tendency to be carried out on an ever-increasing scale. It is cheaper to obtain a daily product of 790 tons of pig iron in America out of one blast furnace than to

---

* † *Spectator.*

‡ E. Atkinson, "Repercussion des droits de douane."

produce 300 tons by the same means and in the same time in England. American steel works turn out as much in a day as they did in a week 30 years ago. Our plants are smaller than in America, with the result that the labour cost is 2s. per ton in America, against 3s. to 4s. in this country, and their standing expenses 2s. to 3s. per ton less than ours.

"The greater the output, the lower the cost of production, the higher the wages." This is recognised in all industries, and has led to large scale production in all advanced industralised countries. But the larger the scale of production, the more liable to over-production. The disposal of this over-production under bounty or rebate (allowed by governments or combinations of trade interests) in our market, at less than cost of production at home, has become the question on which the proposals for retaliation are based.

The sale of surplus of production has always been a troublesome question, even if practised between competing sections at home.

The introduction of roller milling on a large scale into England improved and cheapened production considerably. Thirty years ago milling was principally done in country stone mills; now the industry has drifted to the seashore, and the old-fashioned corn mills in the country are being gradually suppressed by the dumping of the surplus production of the port millers. There were then 15,000 flour mills in the country, to-day their number is about 9,000, including 3,000 with the roller system; whilst the output of flour in England was 52,000,000 cwts., against 76,000,000 cwts. per annum to-day. The country millers blame the port millers for depressing prices by over-production, but the port millers retort that there can be no over-production so long as so much flour is imported from abroad.* At one time the English flour industry was threatened with extinction; now, thanks to improvement in mechanical appliances, it is able to meet foreign competition without any protection.

With the introduction of new methods of milling the quality

* "The Grain Milling Industry." H. W. Macrosty, *Economic Journal*.

of the product was considerably improved; whilst stone milling concerns with a production of 1,000 to 1,200 sacks per 24 hours were a rare exception; to-day we have roller milling concerns of a capacity of 4,000 to 5,000 sacks per 24 hours. Wages rose in the same time from 17s.—20s. to 22s.—40s.

Dumping is therefore no new experience; and if carried on systematically, for the time being, becomes a very dislocating and disturbing influence in business. But this cannot be as great as the fluctuations and disturbances which in a small country must occur regularly if large-scale production is attempted under protection.

It is by no means unusual for English coal to be sold for export by our colliery proprietors at less than to our home consumers, as a large output pays better than a restricted one. The average price obtained will yield a better profit than the sale of the smaller quantity to the home consumer only at the higher price.

Any large-scale industries, working for home consumption, will clear their surplus at less for export than for the home trade, as surplus production must be disposed of, if possible, without interfering with regular customers.

A small free-trade country has greater facilities for disposing of its surplus at less economic loss than a larger protected country. The situation is, however, rendered more serious by the consolidation of trade interests, creating conditions against which tariffs cannot protect us. Over-production will have to find a market, and will be disposed of to the highest bidder, regardless of tariffs, and duties will not stop the dumping of this surplus. The surplus or over-production of Germany, brought about by the decline in the limited home demand, has found a market both in free-trade England and protected America.

Protection, retaliation, or reciprocity, means a contraction, and not an expansion, of trading; a contraction in trade must lead, however, to a contraction of productivity of labour. Under protection opportunities for employment will, no doubt, be increased in some trades, but the total national product of labour cannot increase, but has a strong tendency to decrease. The

real paymasters of labour are, after all, the consumers, and higher prices for commodities produced will automatically reduce consumption. A duty, in the natural course of events, advances the price of the commodity, which, however, in itself need not produce a lowering of cash wages, but the real wages—the purchasing power of labour, will be reduced. "The cheaper the product, the greater the demand, the higher the wages." *

It is admitted that foreign tariffs and bounties seriously interfere with and hamper our trade, but retaliation will aggravate the evil and will lead, in addition to the loss of productivity just mentioned, to:

(1) Re-retaliation, and a tariff war in which, with our dependence on imports of raw materials and half-finished products, we shall come off second best.

(2) The creation of protected trades—vested interests—which makes a return to free trade impossible.

(3) The creation of protected and privileged classes, enriching capital at the expense of labour.

(4) Political intrigues for more protection.

The advance of the duty on Russian rye by Germany did not induce Russia to lower her tariff on German manufactured goods; nor did the free-trade conditions in England prevent Germany from increasing her tariff on English yarn; nor would the imposition by us of a 10 per cent duty on her manufactured goods induce Germany to lower her tariff. Tariff wars lead to great economic waste; they injure the interests of particular trades, and also seriously injure the productivity of labour as a whole. A 10 per cent duty would make other nations find means for retaliation, and instead of goodwill and friendship, so necessary to trade, we should earn hostility and jealousy. Protection, once introduced into our fiscal system, will become the political cry of every inefficient trade, hinder necessary improvements, and spread from one trade to another, till all trades in the kingdom are under protection. The protection of one trade must of necessity lead to the protection of others, and to a

H. Dietzel.

continuous agitation for further increase in protection; this has been the experience in every protected country.

If trades get dislocated through the import of cheaper articles than we can produce, the capital interested looks for new employment, and labour is deflected elsewhere, just as happens at the introduction of new methods of manufacture outstripping the old, but consumers are benefited, as they can buy more than previously. This affects the productivity and the well-being of the whole nation, whilst the real wages, or purchasing power, of the particular buyer are increased.

Just now a revolution is announced in glass-bottle making. An American has invented a machine for blowing bottles, supplanting the human breath. The present labour cost, in America, of producing bottles amounts to 6s. per gross; this new invention claims to be able to produce 90 gross of bottles per machine in 24 hours at a labour cost of less than 3d. per gross.* This will displace 23 men out of 24 employed in bottle-making. But protection against the cheaper American bottles would encourage our glassworks to delay the application of this new invention to their manufacture, and thus lose us a flourishing export trade and lower the productivity of our labour.

The industrialisation of England produced fearful hardships and suffering through the dislocation of old-established trades, but the well-being of the greatest number was increased, and the nation prospered. It is no more to the interest of the nation to stop the importation of cheap foreign manufactures than to stop the introduction of a new invention displacing human labour. It is for the benefit of the consumer, who represents the vast majority of the nation, that he should be able to buy his goods in the cheapest market.

"Out of 29,000,000 persons employed for gain in the United States there are 26,000,000 who cannot be subjected to foreign competition, yet suffer by enhancement of prices due to protection; 2,400,000 persons not subject to foreign competition, whose industry would be promoted by abatement of duties on

* "National Glass Budget."

*

materials of foreign origin; whilst the persons occupied on arts which would require readjustment if all duties were removed number only 600,000."*

But, viewed from the business standpoint, dumping is also an advantage to our industries, as long as we possess enough productivity of labour to draw from it the maximum of advantage. If we fall behind our rivals, however, in capacity for work, intelligence, enterprise, knowledge, and organisation, as well as raw materials; if we allow them to attain greater productivity through cheapening of transport, lower taxation, better laws, and greater taste, then, indeed, we need not dumping to bring about our industrial decay.

We shall not stop the industrial activity and the progress, or reduce the keen competition, of Germany and the United States of America in neutral markets, by trying to keep them out of our home market by a duty of 10 per cent. But our increased taxation will augment their productivity by reducing our ability to compete in neutral markets.

"The duties on imports have prevented the United States from developing an extensive export trade in manufacturing by increasing their cost of production, and have acted as a bonus to free-trade England." †

A reversal of our fiscal policy will give a bounty to United States, Germany, and other rivals.

Our imports of steel and iron, wrought and unwrought, rose from 231,291 tons, equal to £1,674,270, in 1888, to 806,959 tons, equal to £4,118,000, in 1902. This iron and steel formed the raw materials for a great many of our trades. The low price at which they were sold stimulated the production and led to an increase in the export of higher and more valuable articles. In steel and iron and their manufacture we exported in 1888 £44,700,000, and in 1902 £54,826,000; or, against an increase in imports of steel and iron of £2,443,730, an increase in exports of £10,126,000. We also sold ships (not previously enumerated) for £5,872,000 in 1902. Thus the imports of cheap iron and steel proved a benefit to our labour, and increased its productivity.

* E. Atkinson on "Occupations in their Relations to the Tariff." † E. Atkinson.

German wire was exported to England at M.105, against a price of M.135 to the German consumer, with the result that the German exports of pins and needles and many other articles suffered severely, and ours increased at their expense. Loud are the complaints of many German industries not yet under combination, but dependent on "kartellised" products, such as steel, iron, plates, girders, wire, that the action of the kartells is driving the most profitable trade out of the country by selling the half-finished product at a lower price abroad than at home. To charge these bounty-fed articles with 10 per cent import duty would deal a blow at our dependent industries, and seriously cripple them in favour of the foreign maker. Generally speaking, there is a difference of 10 to 15 per cent in kartell export prices, against those charged to their home consumers. A duty of 10 per cent will not keep out the bulk of these goods, but our own productivity in higher-class goods will be lowered by the 10 per cent paid for protection. Suppose America, Canada, and Germany would agree to make us a clear present of all the steel we require, should we refuse it or tax our own consumers to prevent them having the proffered economic advantage of the gift?

We cannot expect to retain our supremacy in shipbuilding if we tax the iron and steel and other accessories which our neighbours are kind enough to sell us at such low prices. Our supply of iron ores is declining, and no protection, however high, will prevent the fatality of "diminishing returns" of the raw materials, but it will increase the loss of productivity. If we lose, however, our predominant position in shipbuilding, and bar the free flow of exchange of commodities, we shall lose also the productive sea-carrying trade by which we pay for a large portion of our imports. In shipbuilding, like in the manufacture of cotton goods, we hold the pre-eminent position. Under protection the building of steel and iron ships costs 30 per cent in America, 10 to 20 per cent in Germany, and 60 to 70 per cent in France more than, under free trade, in England. These figures leave out of account the bounties to shipbuilders, which, in the case of France, amount to 90 francs* per ton.

* Raffalovich. "Les Subventions et les Primes à la Marine Marchande."

In tonnage of shipping we have the following increases in thousands of tons:—

	1870		1901
United Kingdom	5,690	.....	9,608
France	1,072	.....	1,111
United States, registered for over-sea trade	1,516	.....	889
Germany	982	.....	2,093

In spite of the large bounties, the maritime shipping of America has decreased by nearly one-half in 30 years, whilst that of France shows no progression. Germany, under special customs and railway regulations favouring ship construction, has doubled her navy, but her increase of only 1,111,000 tons against ours of 3,918,000 tons shows that our productivity under absolute free trade was infinitely greater than hers.

Mr. Henry George, in referring to the decay of American shipping, says: "It is said that it is the substitution of steam for canvas and iron for wood that has led to the decay of American shipping. This is no more reason . . . . than is the substitution of the double topsail yard for the single topsail yard. River steamers were first developed here; it was an American steamship that first crossed from New York to Liverpool, and thirty years ago American steamers were making the 'crack' passages. . . . . With free trade we should not merely have kept abreast of the change from wood to iron—we should have led it. This we should have done, though not a pound of iron could have been produced on the whole Continent. . . . Had our shipbuilders been as free as their English rivals to get their materials wherever they could buy them best and cheapest, they could as easily have built ships with iron brought from England as they did (formerly) build them with knees from Florida, and planks from Maine and North Carolina, and spars from Oregon. Ireland produces neither coal nor iron, but Belfast has become noted for iron shipbuilding, and iron can be carried across the Atlantic almost as cheaply as across the Irish Sea."

Taxation, whether indirect or direct, inflicts a great loss on industrial productivity. The following figures show the

economic disadvantage imposed on us in the shape of high taxation:—

America pays annually in taxation per head					$6
Germany	,,	,,	,,	,,	$12
United Kingdom		,,	,,	,,	$18

Mr. Atkinson calculates that whilst the product per head in America is probably double that of Germany, the difference in taxation constitutes an economic advantage in favour of the United States of 5 per cent on the entire national product, a difference in productivity not due to heavier protection, but to the absence of the imperialism and militarism which are inflicting such serious injury on the best interests of labour in all countries. The unprofitable expenditure on armaments amounts per head to—

	s.	d.
United Kingdom	23	4
Germany	14	8
United States	8	6

and shows an appalling loss of productivity in England, brought about principally by mismanagement and extravagance in the administration of the nation's affairs. Any increase in taxation for unprofitable purposes means an increase in the cost of living, a decrease in the demand for commodities, a reduction in wealth, and a decline in industrial productivity.

Nor can we ignore the disadvantage under which many of our trades suffer through royalties. Sir Christopher Furness, in "The American Invasion," gives the following royalties:

	France.		Germany.		England.	
	s.	d.	s.	d.	s.	d.
Pig iron (per ton)...	0	8	0	6	4	6
Ship plates ,, ...	1	1½	1	0	5	9
Steel rails ,, ...	0	11	0	8½	5	6

In the productivity of any industry the cost of transport of the materials used in production and in that of distribution of

* E. Atkinson.

the finished product plays a very important part. The average railway rates in the different countries are:

	d.	
United States	0·36	per ton per mile.
United Kingdom.....	1·25	,, ,, ,,
France	1·10	,, ,, ,,
Germany	0·58	,, ,, ,,

But when we come to the carriage of raw materials the difference is much greater. Iron ore in England pays 0·90d. to 1·0d., against the German rate of 0·35d. to 0·40d., or the American rate of 0·20d. to 0·25d.; whilst the Steel Trust by its own railway carries the ore at 0·125d. per ton per mile.

Professor W. A. Bone gives the following interesting particulars:*

Pennsylvania Railroad.	Average Gross Earnings.	Average Expenses.	Average Nett Earnings.
	Cents per Ton Mile.		
1890	0·655	0·463	0·192
1899	0·473	0·344	0·129

Rates for Coal, Coke, Iron-ore, and Steel Billets.		Per Ton Mile. d.
Coal from Pittsburg to Buffalo	(235 miles)	0·21
,, ,, Chicago	(460 ,,)	0·16
Coke from Connelsville to Pittsburg	(50-90 ,,)	0·40
,, ,, Buffalo	(300 ,,)	0·30
Iron ore from L. Erie ports to Pittsburg ...	(150 ,,)	0·20
Steel Billets from Pittsburg to Baltimore...	(334 ,,)	0·28
,, ,, ,, New York...	(444 ,,)	0·23

Germany nationalised her railways, and, whilst improving the service and accommodation everywhere, has adopted scientific rate-making, on the basis of value of goods carried, and of the condition of the industry concerned; and has lowered rates on the average 25 per cent and assisted the export trade by further favourable concessions.

In America, average railway rates have decreased from 1·034 cents to 0·726 cents, owing to the remarkable foresight and

* "Recent Developments in the Iron and Steel Industry Considered from an Economic Standpoint."

ability of a few men, who secured unity of management. This effected such economies in working that rates were reduced, and the lower transport charges helped materially in increasing American industrial productivity, and in minimising the ill-effects of protection.

Meanwhile our railways maintain their rates, and continue to waste the national substance by running half-empty passenger and insufficiently-loaded goods trains. They are only just discovering the principle of "large-scale production," which American and German railway managements have persistently applied to their systems for years. By increasing their train-loads the Lancashire and Yorkshire Railway decreased the cost of transport so that freight train-mile earnings were on this line: 1900, 9s. 1⅓d.; 1903, 10s. 7½d. Any advantage, however, gained in this way will not help the British producer in his struggle against his foreign competitors, but go into the pocket of the railway shareholders. But not only have other nations much lower railway rates for the carriage of commodities required in industrial production and for the distribution of the manufactured articles, but they have developed an extensive and growing canal system, by which all heavy materials can be carried at one-third or one-half their railway rates. Whilst English railways have smothered our canal system, the German Government, acting on a national policy, considers them necessary to complement the utility of the railways, and is still extending canal construction. Canals in America are also under State control, and add considerably to the industrial productivity of the country.

The construction of light railways is undertaken or assisted by many governments, and equally adds to the industrial productivity of our competitors. The results are astounding. Industries are springing up in new places, thus opening up districts before unproductive: land, previously barren, becomes arable, mines are opened out which could not be worked before owing to high transport charges, the national welfare receives an indirect increase, and the productivity of the nation is augmented all round. The Manchester Ship Canal affords an

illustration how by additional facilities of transport new industries are created, and how the productivity of the whole nation could be benefited by the provision of increased transport facilities on Continental and American lines.

The transport of wheat from Chicago to New York cost in 1866, 46 cents per bushel; in 1902, 8·75 cents per bushel; and freight from New York to Liverpool—1861, $3^{15}/_{16}$d. per bushel; 1902, $1^{7}/_{16}$d. per bushel;* whilst railway carriage for wheat from Midland agricultural districts to London or Liverpool costs to-day 5d. per bushel. It costs more than double to send rough timber from the Midlands to London than from New York to London. The freight on steel from Dortmund to London is 6s. to 7s. 6d. per ton, according to quantity; the canal carriage from Staffordshire to London is 12s. 6d. per ton. There is probably no more remarkable instance in the *laissez-faire* policy of the English nation than the neglect of its means of transport, which is nothing less than a deliberate injury to its own productivity. Royal Commissions recommended the development of our canals many years ago, but nothing has been done, and probably nothing will be done, under present political conditions. No English Government has fully realised its responsibility up to now to promote measures making for industrial productivity.

The monopoly of shipping rings, which the State has allowed to grow up amongst us, has been, and is generally, a brake on British industrial productivity, and interferes with that freedom of trade which makes for the benefit of the largest number. It is notorious that the shipping rings have charged for freight on cotton goods, up to quite recently, 50s. per ton from Liverpool to Shanghai, whereas the Americans paid 27s. 6d. per ton to the same market from New York, in spite of an additional distance of 3,000 miles. Owing to combined action of our cotton manufacturers, employers, and merchants this is now altered, but there still exist differences in favour of the American producer. It is cheaper to send goods

* *Statist.*

to Java, *viâ* Rotterdam and Amsterdam, than shipping them direct from England.

Nor are we at all on a par with our competitors as regards fire insurance. Spinners and manufacturers in New England have effected mutual insurance of their industrial establishments, and by subjecting themselves to close inspection and making all alterations and introducing all improvements which the head office has proved to be necessary, have reduced the premium on cotton mills to 10 cents per $100 = 2s. for £100, whilst the loss through fire did not amount to more than 3·77 cents per $100 = 9·05d. per £100: against this we have the English rates from 10s. to 30s. per £100. This is only a small and incomplete example of what can be done by combination and the elimination of individualism to increase the productivity of labour.

England had the skill, the enterprise and pluck, the ability to make the fullest use of the possession of cheap natural resources and mechanical inventions; she led the way in great legislative measures of social reform making for the well-being of her people, such as freedom of trade, of faith and of press, trade unions, factory laws, poor laws. Her prosperity was rapid and startling. A policy of *laissez-faire,* of non-interference, followed. Education was left in the hands of the Church and other religious bodies. Whilst other nations perceived that the future must belong to the people with the greatest brain power, and for 50 years and more took education energetically in hand and removed it from the arena of religious jealousies and strife, the State in England never recognised the necessity or realised its duty till 1870. The Education Acts passed since show the reluctance of Government to interfere with vested interests and religious prejudice. The fact that great prosperity had been achieved by the practical common sense of the people without education engendered the popular belief, so prevalent even to-day, that education was not necessary, and that practical experience was more valuable than scientific training. Now, England's great problem is to remove this belief and the indifference and apathy of the people in regard to education. Indifference has hampered the progress of education everywhere; we owe to it the brevity

of the elementary school life, which finishes before a child has really begun to understand and think out its lessons, before it can appreciate the advantages of knowledge, and when all is still drudgery. Even to-day we have no continuity, no co-ordination of school life; and little progress is made with the provision of cheap and adequate secondary education, to which the success of Germany and the United States is due in the first instance. We have built magnificent technical schools and have properly equipped them, but we have no properly prepared pupils for them. We specialise instruction before the pupils have received a sound education. Sir Norman Lockyer claims a vast expenditure on improving university teaching and the opportunity for research; but, says a correspondent from Oxford, "The real difficulty of the situation is—Where are the pupils to be found who will make Oxford the home of real learning and give the necessary stimulation to the teachers whom we propose to provide for them? It is true that the boys sent to us from the public schools have rarely any desire to add to the world's knowledge, but this is just because the spirit of true learning has not penetrated to the schools through the masters we send there."

It is a notorious fact that applicants for teachers' situations in our public schools must possess qualifications in cricket and football, and that their learning and powers to impart knowledge are often a secondary consideration. With the indifference of the people to education we have a concomitant indifference to social progress. An intelligent interest in public affairs, however, depends largely on the education of the people, and as long as elementary and secondary education are neglected and are not within the reach of the working man, as long as public opinion will not insist on compulsory education up to at least 14 years, we can hardly hope to see greater interest in progress and social reform. The estimates of German Ministers of State for Education are frequently exceeded by the clamour of the representatives of the people for greater educational grants, whilst we, with all our wealth, cannot find money to put education in order. There is no gainsaying Sir Norman Lockyer's epigrammatic utterance,

"Trade follows brains and not the flag," but we still hanker after the flag and neglect the brains. The productivity of German and American industries and their encroachments on our trade are due to greater intelligence in scientific training and knowledge, and to energy and enterprise developed by a wise education. We are told this from every housetop; but whilst our local educational authorities are doing their best, they are hemmed in on all sides by restrictions and inadequate provisions and the indifference of the people.

The result is most serious. At the best of times it will take 20 years before education can affect industrial productivity, and unless we are quick in improving education we may indeed despair of the future. Meanwhile the industrial activity of our competitors is not slackening. Germany realises that the loss of productivity, brought about by limitation of population, protection, and the diminishing raw materials, can only be made good by the fullest development of brain power, by the greatest vitality of her people, by the cheapening of transport; and she resolutely sets to work to solve these problems. Efficiency in trade and industry, and in all offices of State is the result.

It must be admitted that the whole tone of English life, with its luxuries, recreations, and pleasure-seeking tendency, is detrimental to the education and the training of young men. The contempt of the "well-bred" classes for serious work or business permeates the ranks of the middle classes; and it is to be feared that the sons of the men who gave England the foremost place in the world have neither the pluck and determination nor the application and industry of their fathers. They frequently tell you that they mean to enjoy life as they go along, and do not believe in "all work and no play." Against these men are pitted the plodding but highly-trained German and the restless, well-educated American.

The following is an excellent description of the American spirit: "The desire to earn money at all costs is so intense, and so completely outweighs all other considerations, that the people themselves voluntarily shorten the dinner interval, as I have often seen; and many would, I verily believe, never leave their work

at all if they could help it. The lust of gold is a positive craze."*

In the present discussion we are not concerned with the ethics of such immoderate exertion, but with the productivity of labour, and it is only too true that the closer application and greater intelligence of American and German labour are gradually overtaking us in many branches of industrial activity. If this has not been felt more severely so far, it can only be attributed to the great advantages we enjoy through free trade.

But social and economic reform must go hand in hand with that of education, as our industries depend for their productivity not only on the intelligence and knowledge, but also on the vitality and physical strength of labour.

Both America and Germany possess a large reserve force of labour in their agricultural districts. That reserve in England is exhausted, and the conditions of life in industrial towns are such that not only are the ranks of labour decimated and weakened by disease, but 12,000,000 of our population are described as on the border line of subsistence and hunger.

"At the beginning of the erection of the Tower Bridge, the proportion of Londoners was considerably greater than at present. Many were taken on at first, but were soon found unprofitable workmen, or at least inferior to the Northerners. In the opinion of those who have the enterprise in hand, this is universally the case; a man from London does not stick to his work so well as a man from Sheffield or the Tyne, and may be roughly said to be one-third less productive. No exact record of the places from which labourers come is kept, as men are taken on without recommendation; but there is no doubt of the inferiority of London labour, as indeed of that of any other capital city." †

Here we have, according to Dr. Charles Booth, a loss of 30 per cent in productivity of labour through the unhealthy conditions of town life.

The recruiting and other statistics give further proof of the deterioration of the industrialised people. The large consumption

* *Times.* † Dr. Charles Booth's "Life and Labour of the People of London."

of alcohol and the enfeebling of the nervous system, and lowering of vitality which follow, tell a terrible tale. The waste of food, the early marriages, the utter want of knowledge of the merest rudiments of cooking and domestic economy, are a great loss to the nation's productivity.

"The poverty of the home, furniture, clothing, food, etc., bears no relation to the amount of earnings. Very tidy houses and children are found where wages are only 18s., and often where not more than £1, and the greatest misery and destitution where man and wife are earning 30s. and 35s. a week. *There is money enough.* . . . . In these streets there is generally money going; it is the way of spending it which is amiss. Drink, betting, and the grip of the money lender are mentioned as the principal social difficulties; poverty, due to lack of earning power, comes after. Including free meals, very few are underfed, but the majority do not get properly prepared meals. Everywhere they suffer more from bad feeding than underfeeding. . . . They are very poor, but earn plenty of money—it is the drink. Drink is bad enough among the coalies, some of whom may earn £5 to £6 in a week, and not have a halfpenny left next Monday morning. It is not want of earnings, but the public-houses that are responsible for the existing poverty."* Here is a picture of waste of the nation's vitality and substance before which religion and civilisation must hide their heads in shame, and confess their failure.

"The productivity of labour is largely the effect of the sobriety of labour."

"L'avenir est aux peuples sobres," says M. Cauderlier.† "We are the most extravagant nation in the world; we spend too much on food and drink, and too little on education," says Sir R. Giffen.

No wonder the German workpeople on lower wages have cleaner houses, cleaner clothes, cleaner children. No wonder that the greater equality, the more cordial intercourse of employer and employed in America, which is often mentioned as a factor

---

* Dr. Charles Booth's "Life and Labour of the People of London."

† *Economic Journal.*

in productivity, is impossible in England under present social conditions.

It is unfortunate that neither the captains of industry, nor the working classes should believe in the value of greater exertion, and that trade unions still do their best to discourage individual effort. They were founded on the belief, very prevalent 50 years ago, and by no means extinct to-day, that the rate of wages solely depended on the number of labourers wanted, and that there was only a certain amount of work to be done, and that anything which reduced the opportunities for work, such as the introduction of machinery, would reduce wages. If trade unionists were better educated they would realise what has been stated before, that wages invariably rise with the increase of the product and the decrease in the cost of production; and that international competition cannot tolerate for long organisations which put a check on productivity.

Their mistaken doctrine inflicted no serious injury on productivity as long as England held the monopoly of the trade of the world, and as long as the efficiency of foreign labour was low. But under better education and increasing wages foreign labour has become more and more efficient. The reason of the higher wages in America does not lie in the greater scarcity, but in the greater productivity of labour. They produce more and receive higher wages. This serious error of English trade unionism has led to the limitation of output, the discouragement of industrious workers, the opposition to labour-saving machinery, and to many unprofitable strikes, resulting in a decrease of national productivity which has had and has now a most serious effect on our ability to compete.

The organisation of labour into trade unions is one of the greatest achievements of our industrial development, and has done magnificent service to the community; and it is the right and proper function of trade unions to do their bargaining collectively and obtain every advantage, including a minimum wage, for their members; but few trade unionists realise that any restriction on output constitutes a great danger to the prosperity and progress of the whole country, and to labour in particular.

Nor can we forget that trade unionism, by discouraging individual effort, is responsible for a great deal of that indifference, that slovenliness and waste in work and material, that inertia, that want of incentive and inventiveness which are necessary to obtain a maximum of productivity. The axiom of trade unionists that it is better to employ two men on a job than one should be combated by their intelligent members, who by the history of industrial development must have learnt that all wages and opportunities for employment increase with the quantity produced. When trade unionists once realise this empirical truth and act on it, their foreign competitors will be readier to embrace trade unionism, and the American theory that "a man may work as long as he likes, when he likes, where he likes, as fast as he likes, for as little as he likes" will be modified by considerations of collective advantages. Trade unionism has not made much progress in America. The strong organisations of employers, the large influx of unskilled labour through immigration, the stimulating effect of the climate, the prosperity of the country, the facilities for ambitious men to rise and better themselves, and the determination not to be hampered in their upward course by effete and indolent weaklings, who do as little as they may in a day's work—these causes have prevented the success of trade unions in America. A clearer perception of things as they are have convinced the American that he would lose by an opposition to new machinery, and that it is to his and his fellows' advantage to increase the production as much as possible.

On the other hand, many English employers do not see that their businesses are no longer exclusively their own; and that the time for fixing wages on new machine production by individual bargaining, and attempts to exploit labour, are inadmissible to-day. Whilst we require greater robustness and a healthier tone amongst our labour men, and a broadened attitude on the part of the employers, we must recognise that in the avoidance of economic waste through strikes and lockouts we are much in advance of America. During the last few years, in America, under protection, there have been many strikes, many lockouts, whilst we have been remarkably free from this terrible waste.

The trade unions in the cotton industry are a notable exception to the practices prevailing in other organisations of labour, not only as regards the joint Arbitration and Conciliation Board and the agreement regulating piece-wages, arrived at between employers and employed, but also in their acceptance of the principle of solidarity and community of interests. The joint action of the federation of the employers and the trade unions of the operatives in such questions as shipping rings, British cotton growing, representations to Government, etc., may well be held out as an example to trade unions and employers in other industries of what can be done by intelligent co-operation.

It should be laid down by law that questions between employers and employed must be referred to their own Arbitration Boards; and, if they fail to find a solution, to the decision of Courts of Arbitration appointed by Parliament, whose decisions should be final and binding. The weakening of our national productivity by strikes and lockouts will become a thing of the past when employers and employed fully realise that individualism must give way to collectivism. The refusal of employers or employed to submit their case to arbitration, as in the Penrhyn lockout and the anthracite coal strike, must be made punishable by law with heavy fines and imprisonment. Strikes or lockouts are crimes against humanity and the common welfare, and must be dealt with as such.

The most remarkable feature of English public life is the conservatism of all classes of society. No progress is made in legislation to promote the productivity of the nation; there is no great leader, and no pressure from the people for political progression. It is admitted on all sides that the land laws are antiquated and an injury to the industrial community, enriching the few at the expense of the many. Our patent laws have enabled foreigners to usurp trades which should have been carried on at home and increased our productivity. Though lately improved, they still are behind those of other progressive nations. The codification of law, commercial tribunals, efficient consular service, reform of currency, measures and weights, new banking laws, and taxation of ground values, the abolition of entail, effec-

tive workmen's insurance and old-age pensions—these and many other reforms are urgently needed to give the English workers a better opportunity of competing with their foreign rivals, but the nation seems "too tired, too weary" to enforce them.

"What one longs for is another of those great movements which suddenly break forth, one knows not whence, and which carry the race, one knows not whither, which in literature is called a renaissance and in religion a revival." *

The conservatism of the political world is reflected in our industrial conditions. Neither men nor employers can rid themselves of its influence. Working men, in restricting output and opposing the introduction of new methods, uphold a tenet based on false economic theory; and employers, in opposing changes in methods of manufacture, collective bargaining, and progressive legislation, are injuring not only their own interests, but the productivity and well-being of the whole nation.

In comparison with our great rivals, the smallness of our population, the diminishing natural wealth in minerals, the low standard of education of the working classes, the short-sighted policy of the trade unions, the indifferent training of the leaders and captains of industry and their love of ease, the strong individualism of the English character, the stagnation in legislation and social progression—all these are very serious disadvantages, and undoubtedly reduce England's industrial productivity. If she were to add the further check which inevitably follows protection, she would lose the main advantage she possesses to-day in international competition.

Professor Jevons says: "Perfect freedom of exchange seems the greatest advantage; perfect freedom of exchange tends to the maximum of utility."

Freedom of exchange, and being the "respectable old firm" with the largest trade, gives us an enormous advantage over all others. There are indications that many employers have recognised the necessity of different methods and organisation; that an ever-increasing number of influential men see the importance of education, and are doing their utmost to remedy our defects;

* Rev. John Watson.

that trade union leaders are losing some of the harshness and rashness of judgment in dealing with disputes. It requires, however, a strenuous effort of the whole nation to put our house in order, to bring about a reform in social and economic conditions and in the education of the whole people. Meanwhile, the growth of the trade of our neighbours need not alarm us, as it will help to develop the magnificent possibilities of exchange. As their and our productions penetrate into less civilised countries they create new wants, new desires; to satisfy them those countries will grow more and more productive, and anxious to exchange the product of their labour in the best and cheapest market.

"The possibilities of further industrial development are illustrated by the fact that the total exports from all the manufacturing States of the world, to the non-machine using nations of Asia, Africa, (South and Central) America, Mexico, West Indies, do not exceed $1 per head of the population supplied: their imports from all countries not exceeding $1·25 per head." *

Compare with this British exports £5. 19s. per head, and British imports £9. 16s. 6d. per head, and we must admit the vast possibilities of future trade expansion. The share we may have in the great trade of the future will depend, however, not only on the better education, greater industry and energy of labour, and an improvement in the conditions of life, but on the solution of the great problem created by modern industrial conditions.

The last century brought the so-called industrial revolution, evolving out of handicraft pursuits the factory system and mechanical production, resulting in a great cheapening of cost, an immense increase in trade and general well-being.

In the beginning of the new era the theory of Adam Smith, that it was not the function of the State to interfere in business, that to be prosperous there must be complete freedom of contract, free competition, and free trade, was universally accepted as the best for society. The *laissez-faire, laissez-passer* policy of the State gave expression to this, and wrote indelible chapters of

* E. Atkinson.

disgrace and ignominy, crime and suffering on the history of the nation. Only after great opposition, and not without endless delay, did the voice of humanity prevail. The first Factory Acts, regulating conditions of labour, were passed and unrestricted competition received its first check.

Labour, under an intolerable tyranny practised by employers, became organised, and insisted on and obtained collective bargaining, securing thereby higher wages, shorter hours, and better terms of employment. Thus unrestricted competition and individualism received a further blow.

The natural growth of business and the discovery that large scale industry cheapened production led to the establishment of large concerns in all branches of industry; and, by a natural evolution, to the association or amalgamation of businesses producing similar or the same class of goods. Large scale production and amalgamation lead to a reduction in the number of establishments, and with this the forces of free competition undergo a further limitation. Competition to be effective must be amongst a large number of people or establishments. With a limited number combination and joint action in all matters affecting trade interests can easily be carried out. The factors making for cheaper production and opportunities for increased profits are so great under combination that in one country after another industry, trade, production, distribution, banking, transport, shipping—all have come under its influence.

Labour, in its organisation and co-operation, was first in demonstrating the advantage of limiting the free play of competition, and employers followed by combining interests, and concentrating industry. There are some 13 amalgamated industries, with a capital of nearly £40,000,000, connected with the textile trades alone in this country, and many other trades show the evidence of this industrial evolution amongst us.

The limitation in the number of suppliers, viz., the abolition of effective competition, and the existence of large concerns having the control in production and price of certain commodities, required as raw materials by other large-scale industries, creates a state of dependence of one production on another, which grows

intolerable, and leads to a further evolution in industrial conditions, viz., the integration of industry, under which all factors of production and distribution become consolidated. This secures control of supply of materials required, and of all productive and distributive agencies involved.

Under this evolution the ironmaster acquires mines and quarries, and amalgamates with the tool and machine maker, the shipbuilder, and other allied trades. The large-scale cotton manufacturer becomes the cotton importer, spinner, bleacher, and dyer, a merchant and banker of foreign countries, eliminating the middleman. The co-operative wholesale societies become farmers, manufacturers of textiles, boots, clothing, millers, steamship owners, carriers, bankers. The cabinet maker becomes the importer and wholesale merchant of timber, large-scale manufacturer of furniture, house decorator, druggist, dealer in provisions, wearing apparel, works of art, carriage builder, horse dealer, hotel promoter, and builder and estate agent, etc., etc. The same spirit of integration of related interests is creeping steadily into one business after another, building up huge concerns, and rendering them more and more independent, cheapening the cost of production and distribution, and reducing competition everywhere, absolutely abolishing it in many cases. The American iron industry made the greatest progress since its consolidation, and the Steel Trust is the most notable example of this integration. It controls 70 per cent of the magnificent deposits of iron ore from Lake Superior, possesses its own collieries and quarries, 200 miles of railways and the control over others, a large fleet of steamers—which render it independent of outside supply for its blast furnaces. It furnishes the raw material to its own rolling mills, machine shops, and other branches of the steel and iron industry down to nails and screws. The purchase of the English steamship lines by the Atlantic Trust is only another link in the chain which stretches from the iron-ore deposits on Lake Superior through the numerous processes of manufacture, transport, and distribution to the smallest part of a delicate American mechanism delivered in other parts of the world. This new evolution not only secures control

of production and distribution in one country, but threatens to embrace the industries of other countries and to become a world power, defying all political and fiscal barriers.

The German steel makers have just combined their interests into a most formidable syndicate, securing control of materials and the complete distribution of the same. It is not improbable that the Steel Trust of America and the Steel Syndicate of Germany will arrive at a combination or agreement, regulating their interests and abolishing competition.

The shipping rings embrace all the leading maritime countries, and a trader, when shipping by outside steamers in one country, is refused shipment of his goods in all others by the federated lines.

The following diagram, taken from Professor Ely's book,* shows the evolution and integration of industry from different standpoints, but all leading to one inevitable goal, the abolition of competition and the substitution of collectivism for individualism.

From the Standpoint of Production.	From Bücher's Standpoint.	From Hildebrand's Standpoint.	From the Labour Standpoint.	From Giddings's Standpoint.
1. Hunting and Fishing.	Independent Domestic Economy.	Truck Economy.	Slaughter of Enemies, Woman's Labour, and Beginning of Slavery.	Ceremonial. Luck. Magic.
2. Pastoral.				Sacrificial.
3. Agricultural.			Slavery and Serfdom.	Business Economy. Slave Labour.
4. Handicraft.	Town Economy.	Money Economy.	Free Labour Governed by Custom.	Trade.
5. Industrial. (a) Universal Competition as an Ideal. (b) Concentration. (c) Integration.	National Economy. *World Economy.	Credit Economy.	Individual Contract, with Increasing Regulation by Statute. Group Contract, and Regulation by Statute.	Capitalistic.

Added by Professor Ely.

* "The Evolution of Industrial Society."

The German kartells are another example of this integration of industry, depriving their members of liberty to sell and trade where they like, produce as much as they like, or sell for as little as they like. "Over 200 industries are 'kartellised' in Germany. Eight-tenths of the capital and two-thirds of the labour of the United States are employed in trusts."*

The theory of free competition has been destroyed by the natural evolution of industry, the policy of *laissez-faire* condemned by its results. Individualism and competition have, however, become so ingrained in the Englishman's character, in all his institutions, laws and customs, that he finds it difficult to believe that this momentous change is becoming the social and industrial danger of the new century; that integration of industry is but a spontaneous evolution and the solution of the industrial problem—the cheapening of cost of production. Whether the change will be beneficial to humanity and make for an increase in well-being of the greatest number, or destroy our social order and put back civilisation, is the unsolved problem confronting all industrialised nations of the world. A transformation of the existing order of things seems, however, inevitable.

The controversy of the day has quickened the interest of the people in economic and social questions, and if this will lead to an appreciation of the social difficulties arising from integration, it will not have been in vain. With the disappearance of the old economic landmarks has come a change in political conditions. The middle classes in all industrialised countries are losing their political influence and power. Integration of industry and the accumulation of wealth have created a fourth class, distinct and independent of the traditions of the old society; financiers, trust magnates, millionaires, and company promoters have become a new power in the State, wielding an influence diametrically opposed to that of labour, and corrupting both middle and upper classes. "The greatest scandal of the United States is the open and unblushing exercise of control over politics by trusts." † Nor are we free from this ourselves; the "lobbying" in the House

† Macrosty, "Trusts and the State."

when railways, telephone, and other monopolist interests are at stake have become the subject of open comment.

Industrial productivity of the future will depend, in the first instance, on the solution of the social question presented by the changed conditions, and will fall to the nation solving this problem on the most rational and practical lines.

Protection encourages not only privilege and monopoly, but their greatest evil, the selfish exploitation of consumer and labour. Free trade, whilst limiting this evil, will not, however, prevent its operation.

As trusts and kartells have evolved out of large scale production abroad, so is monopoly evolving out of large scale production with us. The possibilities of economies in production and distribution are so enormous that where the integration of industry can be used for the good of the community, instead of the privileged few, it will result in a great increase of industrial productivity and general well-being. The monopoly is, however, used in the first instance to kill the remaining competition or force it into the combination. The most progressive private manufacturer will suddenly find himself undersold, the financial power of the trust will drive him to the wall, and through no fault of his own he is ruined or forced to surrender on the terms dictated by the monopolist combination. Then follows the advance in the price of the commodity to the consumer. On the creation of the monopoly he is assured that the extraordinary possibilities of economies will be used to benefit him in a reduction of prices, but it cannot be said that so far these industrial monopolies have been managed on the principle of "enlightened self-interest." The promise of a lower price to the consumer turns out a delusion, and experience proves that the selfishness of human nature under industrial integration even outstrips its predecessor under competition. Only one consideration guides the monopolist—the ability of the consumer to pay. The telephone service in England is dearer than elsewhere, because the monopolist company knows the exact charge which will produce the greatest revenue: a higher charge would reduce the number of subscribers below the present; a lower charge

would not increase their number sufficiently to make up for the difference in price. However, hopes of economies and lower cost of production by integration of industries are frequently dashed by over-capitalisation, which has enriched the owners of concerns, acquired at exorbitant prices, but which have to be closed through being obsolete and out of date. Over-capitalisation is a common disease amongst integrated industries, but though "a lot of water may have to be squeezed out" of them before they are on a proper business footing, the possibilities of producing cheaper than under individualism and competition are so great that the integrating movement will not stop.

"The innermost principle of trading is cheapening of production,"* and the easiest way of obtaining this desirable consummation is by large scale manufacture and integration of industries.

A few concerns that have over-reached themselves in capitalisation may, however, die of financial indigestion, but will be resuscitated under more favourable conditions, and one field after another of human activity will be invaded and covered by integration, and in the end the control of every commodity required by mankind will have drifted into the hands of comparatively few men, working for private gain and possessing power for great evil. "The ocean we are navigating is smooth, but where are we being driven to by the waves?"

Trusts, kartells, and integrated industries generally, are accumulating large funds for the purpose of fighting and suppressing organisations of labour. With the new evolution of industry, the solidarity of employer and employed—the old feeling of personal interest, sympathy, respect, and trust has disappeared. Working men realise that individually they are only the small bolts and screws of a huge machine, which are thrown away and replaced by new when worn; they realise that they can no longer trust their political interests to the middle and upper classes, and must carry Parliamentary representation by their own fellows

---

Schulze Gaevernitz.

at all costs. The integration of industry, so desirable as a great factor in cheapening production, is accentuating the difference between the classes and widening the social gulf. We have seen that integration, carried to its logical conclusion, obtains complete monopoly of price, secured by means of organisation and control of all factors of production and distribution. The Meat Trust in America is exploiting the farmers by forcing them to sell their cattle at prices considerably below cost of production, and exploiting the consumers by charging fabulous prices for meat in their retail shops. From everywhere in America comes the same story of robbery, and a cry for protection against the monopolistic abuse. Labour, even if more trades were well organised, would be powerless against the strength of federated integration and combination. A struggle between employed and employers to-day will probably end in the defeat of the former, and it is to be feared that the over-production brought about by trusts in America will demonstrate in the near future the helpless position of labour against combined capital interests. The trusts in America, and no less the big companies representing integrated trades with us, have a firm grip on labour, which must lead, sooner or later, to tyranny, and with it to suffering and social trouble, necessitating the intervention of the State.

Nor can we ignore the social and industrial danger of the accumulation of large amounts of capital in a few hands, and the ease with which it is handled. The cotton trade this year gives a concrete illustration. The injury to this trade has been enormous; hundreds of thousands of cotton workers in different parts of the world have been deprived of their daily bread, manufacturers brought to the brink of ruin, by the action of a handful of speculators operating with large means to delay the regular flow of the raw cotton. A successful corner in wheat has become as feasible now as one in cotton, and though the social and industrial danger involved is imminent, it is hopeless to try to avert it by restrictive legislation. Trade is international, and secret understandings and agreements between individuals, no less than big companies, can circumvent even concerted international legislation. Tariffs and protection

do not guard against the social dangers involved in the integration of industry and the accumulation and control of large amounts of capital in a few hands, nor are we protected against them under free trade. Moreover, it is desirable that the increase in productivity through integration of industry should not be lost to the nation.

"Private monopoly is a public danger which cannot be undone by law; nor if it could, would any economist recommend that the community should abandon the most efficient method of production for a worse."*

The integration of industry is a permanent factor; to ignore its phenomena and dangers to the commonweal, to drift along the old lines as if free competition and free contract still existed and safeguarded the interests of consumers, will imperil social order and civilisation, and lower the productivity and the welfare of the nation. Are we "prosperous not only in appearance, but also in reality," while capital and power are accumulating in the hands of the few and undermining the foundations of society? The prosperity of the upper and middle classes does not give us the prosperity of the millions who live on the subsistence line.

In England about 10 per cent of the people receive nearly one-half the income of the whole; the remainder get the other half. Fifty per cent of the people in the United States have no property, seven-eighths of the people have one-eighth of the national wealth; the remaining one-eighth of the people have seven-eighths of the wealth; whilst 1 per cent hold more than the remaining 99 per cent. It would certainly seem from this that a greater diffusion of wealth is required before we can speak of the assured prosperity of the nation. We find a timid recognition of the desirability of a greater diffusion of wealth in our death duties, but we still wait for a graduated income tax, the soundest of all taxation. The death duties in some countries have been graduated up to 20 per cent, without hardship to the

* Macrosty, "Trusts and the State."

community; whilst in others economists are advocating the increase of these duties up to 50 per cent.

There is plenty of evidence to show that by integration only can we hope to hold our own against the consolidated industries, the trusts and kartells of our rivals. The question arises again, how can the maximum of well-being of the greatest number, the stability and productivity of our industrial conditions, be obtained under modern industrial conditions?

Trusts and kartells have strengthened the cause of Socialism abroad, and the belief is getting a firm hold, not only amongst workers, but amongst a large proportion of intelligent observers and earnest social reformers, that modern industrial development can only be solved through measures extending socialisation. Whilst socialisation has been recognised as a great factor in the modern state in Germany, we have, under the individualism preached by Adam Smith, practically refrained from all State production and industrial enterprise, and are now ill-prepared to enter collectively upon great productive activity in the industrial field.

"We find this rather amazing result, that in the country where Socialism has been less talked about than in any other country in Europe, its principles have been most extensively applied,"* says Mr. Morley; but this has been done more in protective legislation than in collective industrial production.

The Government dockyards, ordnance factories and army clothing establishments are probably the only industrial undertakings of the State with us. Prussia recognised 40 years ago that it was in the interest of the whole community that the remaining unappropriated mineral wealth should become public property, and undertook mining and production of iron and steel on account of the State, at the same time, however, encouraging private enterprise in the same direction.

---

* Morley, "Life of Cobden."

The following figures relating to the industrial activity of the Prussian State are interesting:—

MINING AND BLAST FURNACES.

	1894-95.		1899.
Number of establishments ...	71	...	65
Production in tons	12,141,483	...	16,407,403
Value of production	Marks 116,273,391	...	184,888,399
	= £5,813,670	...	= £9,244,420
Number of people employed...	57,009	...	69,765
Net revenue	Marks 15,024,915	...	37,261,782
	= £751,245	...	= £1,863,089

FORESTS IN 1900.

State and Crown.....	2,630,890 hectares = 6,498,300 acres	.....	31·8%*
Local authorities	1,103,646 hectares = 2,726,000 acres	.....	13·3%*

* Proportion of total area under forests.

NET REVENUE OF STATE FORESTS.

1884	M. 10·49 per hectare	.....	Marks 25,577,364 = £1,278,868
1900	M. 18·88 „	.....	Marks 51,671,976 = £2,583,598

AGRICULTURE IN 1900.

Number of establishments.....	1,058
Area	335,518 hectares = 828,730 acres
Net revenue	Marks 17,614,389 = £880,720

NATIONAL RAILWAYS (EXCLUDING LIGHT RAILWAYS), 1901.

Length	46,675 kilometres	= 29,002 miles.
Cost of construction	Marks 12,512·6 Millions.	= £625,630.000
Cost of construction up to date, per kilometre	„ 268,079	= £21,572 per mile.
Total receipts.....	„ 1,972·8 Millions.	= £98,640,000
Total expenditure	„ 1,310·1	= £65,505,000
Total net revenue handed to Exchequer	„ 638·2	= £31,910,000
Employed (workmen and officials)	546,211 persons.	
Wages and salaries	Marks 712,000,000	= £35,600,000
Workmen's insurance and medical service	„ 44,000,000	= £2,200,000
Pensions to workmen and officials	„ 61,300,000	= £3,065,000
Special sickness fund	„ 5,000,000	= £250,000

These statistics leave out of consideration the labour employed by the State on canals, harbours, and mineral springs, and other industries worked for the good of the community at large. The Prussian State is the largest employer of labour in the world, and secures for its service the brightest and best intellects developed by its educational system. The revenue from public works undertaken by the State is constantly increasing, reducing taxation, encouraging industry, and increasing the productivity of labour, and making for a greater well-being of the nation. The nationalisation of the railways not only reduced freight rates and materially assisted the industrial development, but prepared the people for a further inevitable evolution of modern industrial conditions, viz., the socialisation of production and distribution.

Meanwhile our railways continue to put an automatic brake on our productivity, whilst Parliament fondly believes it has safeguarded the interest of the public. But competition in railway and shipping transport has long ceased to exist, and the trader has to accept without murmur the charge at which they condescend to carry his goods. The principal factor making against the development of traffic on the Manchester Ship Canal is the existence of the shipping rings, and their monopoly is so strong that neither canal, corporation, nor individual traders can overcome it. The British Iron Trade Association three years ago recommended the appointment of a Royal commission to consider the nationalisation of our railways, as being to the advantage of the trade of the country and ultimately of the State. The president estimated that 10 per cent of the gross annual return might be saved by the State through economies in management. Meanwhile industries continue to be deprived of the full utilisation of the railways and canals of the country, and the political influence of the vested railway monopoly is too great to permit of any interference by Parliament.

The policy of *laissez-faire* in England has encouraged private enterprise in other works of public utility, conferring monopolies, some of which have been bought back at fabulous prices by the State and local authorities. This will, no doubt, be done with

the railways in time. But the railways are not the only remaining example of the mischievous policy which allows the establishment of private monopolies.

The London Water Companies, after discharging their duty to the public inefficiently and inadequately, are demanding a compensation of £47,400,000, for a capital expenditure of at the most £11,500,000, to part with a monopoly which should have been exercised by the State or local authority for the good of the community, and not for private gain.

The plant of the National Telephone Company was valued by Post-Office experts at £2,000,000 at a time when the total capital was about £6,000,000. On nationalisation the nation will no doubt be asked to pay some £12,000,000 for acquiring the goodwill of a private monopoly, which should not have been granted. Attempts to compete with the National Telephone Company have been frustrated by the wealth and influence of the company; competitors, both private and municipal, have been bought out to preserve the monopoly. The service has been condemned as inefficient and of no general benefit by a Committee of the House of Commons, but an improvement in the service can only be brought about by nationalisation at an exorbitant price. Thus is the productivity of the nation injured by many millions through the *laissez-faire* policy of the country.

There are numerous other instances in which the nation has been, and is being, literally robbed by private monopolies controlling public utilities. Public-house licences, granted by the nation for a limited time, become valuable monopolies, for which compensation is claimed, when the representatives of the people decline to renew the licence as no longer necessary. No permanent right has been established, but the substance of the nation is wasted in compensating a private monopoly which has injured the health and morals of the people.

It is frequently stated, that inefficiency and incompetence and wastefulness of the War and other Government Offices, are a proof that England could not manage her railways under nationalisation as well and to such advantage to the industrial

life of the nation as Germany. This cannot be accepted. The War and other administrative offices are the prerogative of the privileged upper classes, to the exclusion of the invigorating forces of the democracy. When we free ourselves from the tradition of the "historical parties," and recognise that not the most influential, but the most capable, men—not the aristocracy of birth and money, but that of brains and character—shall manage the affairs of the nation, such inefficiency will disappear. The Offices of State and the Government at present are directed by a privileged caste, with no knowledge of general business, and possessed of no sympathy with the requirements of the people.

Reform in matters social and political must find the remedy, whilst there are in the railway service of the country men as capable and competent, as efficient and energetic, as any the world produces. They would efficiently organise the railway service for the benefit of industries and the community at large, if freed from the incubus of the shareholders' desire for dividends.

With the financial and industrial success of the national railway management in Germany before us, there need be no hesitation on our part to follow in her footsteps, and to give industry and trade that stimulus of cheap transport for which we shall agitate in vain as long as the railways are in private hands.

Private monopoly, however, has a right to separate enjoyment so long only as it inflicts no injury to the public good. In a well-ordered community the interest of the few must give way to the interest of the many. We cannot attempt to regulate prices of commodities by State control, as it would lower the productivity of the nation, and interfere with its ability to meet foreign competition. The State, however, will have to find a remedy before private monopolies overwhelm its social welfare, and it would seem as if the way of safety, making for the maximum of well-being of the greatest number and the productivity of our industries, lay in the socialisation of all works of public utility, and gradually of such industries as have become integrated into monopolies.

"Comparisons between different countries and different periods show regularly among progressive nations an extension of public activities. This manifests itself extensively and intensively. The State and its subordinate political units continually undertake new functions, and they perform their duties, old and new, better and better. In this way—that is, through public agency—the needs of the population, to an increasing extent, especially their common needs, are satisfied: and the public services for the satisfaction of needs continually improve in quality. The clear proof of this is given statistically in the increased demands made by the State and the subordinate political units."*

It is, moreover, the duty of the State to socialise trades which, though necessary, are injurious to the health and morals of the nation; the exploitation of such trades for private gain is quite indefensible. Intemperance is the greatest failing of our people. It endangers our industrial productivity, and is socially the most demoralising and humiliating factor in our civilisation. The liquor traffic carried on for private gain encourages intemperance, even under the strictest police regulations, and no marked improvement will be obtained till we municipalise the drink trade, which, whilst safeguarding the weak members of society against temptation, will turn into a gain to the community what is now its curse. Profits on productive works can be made to relieve local taxation and assist in undertaking the much-needed measures for improving the housing and social conditions of the people generally, and with an improvement in the moral and physical condition of labour will come the greater productivity of which we are in need.

The extension of the functions of municipalities and State would have a great effect on the people, teach them the responsibilities of self-government, and the value of increased productivity as the prime factor in raising wages. If the working classes to-day do not possess the knowledge and ability to manage the affairs of the nation, we cannot ignore the fact that under

* Wagner, "Allgemeine Volkswirthschaftslehre."

their management the co-operative movement, with its 1,671 societies, some with 10 or more shops, and a membership of over two millions of people, a turnover of £82,000,000, a capital of £35,000,000, and a profit of £9,600,000, is a brilliant proof of the ability and the business capacity of the working classes under socialisation.

Whilst improving the general education of the people, special attention should be given to a higher social and civic ideal, which would lead to a better conception by the people of their responsibilities, and would, at the same time, prepare them for collective business activities.

A gradual socialisation, by increasing the functions of State and local authorities, will, however, not only train the staff needed for extension of self-government, but will find for society at large, without injury to industrial productivity, a way of safety out of the impasse into which we are drifting.

"The titan is tired and weary": the energy impaired, which produced the leading event of the last century—the industrial revolution. It gave England the foremost place amongst the nations of the world, not only in industry and invention, in extent of territory and successful colonisation, but in science and art, and, above all, in the improvement of general well-being of her people.

Has this great civilising force been spent? Is it to disappear like that of Greece and Rome?

"Sparta perished when the whole land of the country belonged to a hundred families; Rome when a proletariat of millions stood opposed to a few thousands of proprietors, whose resources were so enormous that Crassus considered no one rich who could not maintain an army at his own expense." *

The social revolution of the twentieth century stands at our door, and will not be denied admittance. Have we the strength and the moral courage to receive her with open arms, and guide and help her to accomplish her mission of peace and goodwill, of well-being and prosperity of the greatest number?

---

* John Graham Brooks, "Social Unrest."

MANCHESTER STATISTICAL SOCIETY.

The History and Development of the Manchester School Board.

By C. H. Wyatt, M.A.

Read December 9th, 1903.

The Manchester School Board was one of the first appointed in the autumn of 1870. Immediately Mr. Forster's Act became law the City Council passed a resolution applying for a School Board. It was known that there was some deficiency of school accommodation in the city, although Manchester was not in the destitute condition of Bradford, Birmingham, and Leeds, as demonstrated in Mr. Fearon's special report on these towns. The town, however, waited for no formal demand from the Education Department for the appointment of a School Board. It was generally felt that there should be such an authority in all large towns, and Manchester, which had been the centre for many years of the agitation for a rate-aided system and for compulsory attendance at school, could not well be remiss in waiting for a Board to be thrust upon the city. The Education Act of 1870 did not entirely please many of those who had been foremost in the advocacy of the appointment of a local authority charged with the building of schools and the application of a law of compulsion. The Birmingham League, with its advocacy of secular education, was still a force in political life. The year of grace given to voluntary schools had caused much dissatisfaction, and Mr. Forster had been denounced by many of his friends. The controversy had raged

with particular severity in Mr. Forster's own constituency of Bradford. The twenty-fifth clause of the Elementary Education Act of 1870, which gave School Boards permissive powers to pay the school fees of necessitous children in voluntary schools, was seized upon by Mr. Forster's opponents. Mr. Chamberlain came to Manchester to denounce what he considered to be an outrage on the ratepayers, and there was at least one ratepayer who offered passive resistance by declining to pay the School Board rate in Salford. Few of the School Boards had taken advantage of the twenty-fifth clause, and it was a singular fact that Manchester and Salford paid away in school fees for poor children attending the denominational schools more than all the rest of the School Boards of England and Wales put together. Six years later Parliament saw fit to remove the cause of complaint. By the Education Act of 1876 the power to pay fees in voluntary schools was transferred from the School Boards to the Boards of Guardians—one of those devices in English public life so difficult for a foreigner to understand when studying our idiosyncrasies. Eventually the fires died out, and the Guardians of the Poor paid, as a rule, as little as possible. Public feeling was so strong in Birmingham in those days that the School Board, of which Mr. Chamberlain was for some years chairman, absolutely refused to assist denominational schools financially in any direction.

These are matters now only of history: the assisted Education Act, which added to the difficulties of the voluntary schools, and of which Mr. Chamberlain was the well-accredited author, largely freed the schools, and so the difficulty of the fees is now removed.

The first School Board election in Manchester was simply a scramble. Party machinery was not organised, and the use of the cumulative vote, reduced in later years to an exact science, was then not quite understood. The result was, however, a denominational Board, and Mr. Herbert Birley was elected chairman in opposition to Mr. Oliver Heywood, whose claims commended themselves more fully to the Nonconformist minority. The same thing happened in Salford. For fifteen continuous years

Mr. Herbert Birley was chairman of both Boards, when there was a temporary break of three years, during which period the Rev. J. Nunn was chairman in Manchester, Mr. Birley retaining Salford. In 1888 Mr. Birley was again elected chairman of the Manchester School Board, and retained the position until his lamented death in 1890.

The adoption of compulsion was permissive in 1870. Manchester made bye-laws, it is true, but the standards of exemption were low, and the methods of carrying out the law were lax to the last extreme.

One initial mistake was that it became generally known that the Board would not prosecute parents whose children made 50 per cent of possible attendances at school. The natural result followed. What the Board had fondly hoped for as a minimum requirement was immediately adopted as a maximum by the parents of a vast number of the children attending the public elementary schools of the city.

During the period of office of the second Board, commencing in November, 1873, the chairman of the committee dealing with school attendance was the late Mr. John Alexander Bremner, and it was undoubtedly due to his efforts that public attention was drawn to the exceedingly unsatisfactory condition of school attendance in Manchester. Without troubling you with all the stages through which this important department of the work of the School Board was increased in efficiency year by year, I may well here give you some figures illustrative of what that improvement has been. Turning to the first report of the School Board, we find the following return of school attendance:

*December 2nd, 1871.—Average attendance in the public elementary schools of Manchester	30,202
Number of children on books.....	44,961

In order to realise the deplorable state of attendance at the beginning of the School Board era, it is only necessary to compare this return with that of the last issued by the School Board, at June 30th, 1903, when the average attendance had

* Corrected by the returns of the districts added to the city since 1871

*

risen to 94,115, and the number on the books to 107,113. From these figures certain instructive results may be obtained. The average attendance had risen in 31 years by 63,913, or 211 per cent; and the number on the books by 62,152, or ·138 per cent. The population within the period has only increased in the area now comprised within the city by about 131,391, or 31 per cent.*

In 1870 7·2 per cent of the population in Manchester was represented by children in average attendance at public elementary schools. In the middle of 1903, and taking the estimated population, it was 17 per cent. The children on the books of the schools in 1870 made only about 67 per cent of the possible attendances. When the School Board gave up office it had reached 87 per cent, an increase of 20 per cent, representing an increase from Government grants now received by the schools of about £44,700 per annum. It is an interesting fact for the new Education Authorities, particularly of the Administrative Counties, where I am afraid there is still room for improvement in school attendance, to remember that each unit added to the annual average attendance represents, under the new conditions brought about by the Act of 1902, a Government grant coming to the district of about forty shillings per annum.

Several causes have conduced to these satisfactory results so far as school attendance in Manchester is concerned. The bye-law requirements have been advanced both in the matter of the compulsory school age and also in the standard required to be passed before children short of 14 years are allowed to leave school. The main improvement has, however, been occasioned by the wise administration of the law enforcing compulsory attendance at school, and untold good has resulted to the children, for nothing can be more demoralising to a school or town than the careless and irregular attendance at school of children of the school age.

In 1870, when the first Education Bill was before Parliament, great fears were entertained by many eminent persons, who foretold that the enforcement of attendance of children at school would be attended by a revolt on the part of the people, and

---

Corrected by the returns of the districts added to the city since 1871.

that the whole scheme would end in failure. How different has been the result is eminently satisfactory to Manchester, seeing that here were found the strongest advocates for compulsion.

To the first School Boards, Manchester among the number, is due the credit of bringing compulsion into successful operation. Irregular attendance and absenteeism were gradually attacked, mainly by persuasive methods. Let me briefly describe the method pursued in Manchester. The Rota Committees dealing with irregular attendance hold evening meetings at frequent dates in all parts of the city. Here defaulting parents are dealt with: the careless and negligent are urged to mend their ways, concessions are recommended where needed, and the whole procedure is governed by an earnest desire on the part of the Authority to avert the last resort, namely, police court proceedings. It happily turns out that in the majority of the cases the warnings are sufficient, and the child's attendance is secured. The prosecutions before the magistrates for offences arising out of defective attendance grow fewer and fewer in number.

Closely allied with the work of carrying out the law of compulsory school attendance is the administration of the special laws dealing with criminally neglected children. "The Industrial Schools Act," in its present shape, came into existence in 1866, but it was not till the advent of the School Boards that anything like a proper application of this beneficent legislation was applied. Unhappily there are a number of people who, through neglect, allow their children to drift into crime, and there are cases where the children, being without parents or natural guardians, are in danger of entering upon the same courses. It was to deal with these cases, and to stem the tide of criminal population at the age of childhood, that the Act to which I have referred was passed. The Manchester School Board throughout the whole of their history strenuously applied the powers given by the Legislature, and were the means of sending to industrial schools no fewer than 6,634 children. It is happily not necessary now to enter into the particulars of the entire success of this kind of work. It is a well-recognised fact that over 90 per cent of children sent to industrial schools turn out to be reputable

members of society, and this has certainly been the experience in Manchester in connection with the industrial schools with which we have agreements. The Board, finding very early in their career that there was an ample supply of efficiently-managed industrial schools under voluntary management designed to meet the needs of the various denominations, did not think it desirable to put up residential schools of their own.

Contracts were entered into with certified schools in Manchester and other parts of the country for the reception of children committed by the Manchester magistrates at the instance of the Board. Agreements were made with the managers of schools by which these children could be maintained and trained in honest employment during detention, and a strict oversight was kept over the welfare of the children, not only during their period of detention, but also during that dangerous period which ensues upon discharge, when the child, being placed upon the world, with a liberty which it has not hitherto enjoyed, is in danger of falling a prey to, it may be, the evil counsels of parents and others who are still active in ill doing.

Some special legislation having been passed in 1876 for the establishment of day industrial schools—that is, schools where the children committed by the magistrates are boarded but not lodged—the School Board tried the experiment of building one such school in Mill Street, Ancoats. There is no doubt that this school has had a remarkably successful career. At the present time it possesses as high a reputation as any school of the kind in the country. Its influence has been remarkable, in that it has prevented the lapsing into crime of many children who perhaps under ordinary circumstances would not have been sent to a residential school. Many things are possible at the day industrial school which are not possible at the other kind of institution. The shorter periods of detention, and the licensing out of suitable cases on good behaviour during the school age, are special features of the day industrial school. Through the agency of this school a good work has been done in assisting many struggling widows and others with perhaps one wayward boy whom they have been unable to control: they have had their cares considerably

lightened, and the boy saved from what might have been a disastrous end, and from leading astray the younger members of the family.

Soon after the School Board commenced their work, seeing the large number of candidates there were then for admission to industrial schools, it naturally followed that inquiries should be made as to the causes which contributed to the manufacture of candidates for such schools, and it was found that a large proportion of the boys and girls brought before the magistrates had been more or less connected with street trading, in many cases, it is feared, allied with begging and other forms of vagrancy. During a long period the School Board urged various Home Secretaries, and also the Watch Committee of the city, to take action in order to control and license a form of irregular employment which had so evil an effect. Happily the Manchester Corporation at last took up the case, and special legislation was obtained in 1901 enabling the Watch Committee to license and control children engaged in street trading. A most effective system is now in force in Manchester, and perhaps the highest compliment which could be paid to its success is that in the last session of Parliament the legislation was made general, and now any locality may secure by means of bye-laws this undoubted benefit for the children of their district. Having dealt with the methods pursued by the Manchester School Board in securing the attendance of children at school, and the measures taken for the protection of neglected children, I turn to another department of work, namely, the provision of school accommodation.

It was found, in 1870, that owing to the exertions of the various religious denominations in the matter of the provision of school accommodation, there was not that deficiency in Manchester which was so marked in Leeds, Bradford, Birmingham, and elsewhere. The entire deficiency of places was declared to be about 4,000, and it was not for some time that the School Board of that day felt constrained to take any active measures for the supply of additional accommodation. It cannot be said that in their early efforts they were particularly happy. One of

the first schools they built was originally estimated to cost about £4,500—a remarkably low figure, it must be admitted, for a building to accommodate about 1,000 children. Through mismanagement, miscalculation, and the misfortune of having secured a bad site, this school ultimately cost about £18,000. Happily there has been no like experience of the kind. It cannot be claimed that the School Board of thirty years ago pursued a very bold or far-sighted policy with regard to the provision of school accommodation, and certainly it must be admitted that many of the sites they obtained were far too small in area, and the schools were consequently very deficient in playgrounds. There has been a great improvement in the style of school architecture during the period, culminating in the present type of school, with its central halls and class-room accommodation, together with rooms for manual instruction in woodwork and instruction in cookery. Frequently as much as two acres of ground have been secured for a school. Many circumstances have happily conduced to this important improvement. Most of the new schools are now needed in the suburbs, where it is possible to obtain commodious sites free from property and with healthy surroundings. Public elementary school architecture, in its highest development, may perhaps be best illustrated by what is known as the higher grade school. These schools, with upper divisions where the education is of a secondary character for boys and girls up to sixteen or seventeen years of age, have long been in Manchester the crown of the elementary school system. In addition to the ordinary equipment of schools already described, these schools have chemical and physical laboratories, with suitable rooms for instruction in drawing, etc. A good example of this class of school is to be found in the Central School, in Whitworth Street, now attended by 1,400 pupils. The Manchester School Board very early took up the idea of the development of elementary education in the direction of higher grade schools, and the Central School is a permanent monument of the good work of many years of hard and patient labour, not undeterred by difficulties, many of which were created by the Education Department. This school is a

testimony to the earnest endeavour of successive Boards to extend the school age, and to offer means of advancement to deserving boys and girls from the public elementary schools.

No account of the improvement of education in Manchester would be complete without reference to the remarkable development of the evening continuation schools which has marked the history of the School Board, particularly during the past fifteen years. Cramped by unworkable regulations for a long time, the ordinary night schools carried on a fitful existence. Prior to the introduction of what was known as the "Acland Code" for evening continuation schools the Manchester School Board carried out several successful experiments for the development of this kind of instruction. In Manchester, in 1891, was first established that special form of evening schools which has come to be known as the "Women's Institute," for the theoretical and practical instruction of women and girls in what might well be called the domestic arts, had not the term been already identified with something quite different. The scheme of the Board was that special encouragement should be given to women and girls over sixteen years of age in special evening schools, with special appointments, and having skilled teachers in various departments of the work, where the pupils might receive instruction in most of the things that contribute so largely to the domestic welfare of the people. At these schools literature was taught and reading classes were formed. Cookery was taught in various stages, and also laundry work. The pupils were taught to cut out and make their own dresses, how to effectually master the mysteries of the laundry, and how to act when sickness entered the home. From the first these institutions were attended by the highest success. I see that the number now under instruction in eight special evening continuation schools of this class alone is 1,500.

In another department of evening school work the School Board made experiments in the development of commercial education. Time would not suffice to describe what has been done in this direction, but it has been demonstrated beyond

question that a great field of work hitherto unoccupied was taken up in connection with these evening schools.

The success is illustrated by the Central School, in Whitworth Street, where some 2,500 students, mostly adults, are nightly instructed in languages and other subjects bearing upon the commerce and trade of Manchester and the world. The success in examinations, the enthusiasm of the pupils, and the good results of the work at these commercial evening schools are demonstrated in various ways, particularly by the number of awards taken at all kinds of open examinations conducted by the Society of Arts and other recognised examining bodies conducting special examinations in languages, book-keeping, shorthand, and commercial knowledge generally. There are now in Manchester eleven commercial evening schools carried on by the Education Committee, with 5,307 enrolled pupils. Much of this work had to be done in the face of great difficulties. There were uncertainties, which afterwards developed to an extent to which it is not necessary now to refer, seeing that they no longer exist, but that there were real difficulties in the way of the School Board and its work in connection with the evening and higher grade schools is best known to those who had to face them. It is certainly a matter of satisfaction to know that owing very largely to the experiments carried on by the Manchester School Board a complete revolution was made by the Education Department at the time when Mr. Acland was Vice-President of the Council, in the direction of the emancipation of the evening school system and the opening up and extension of various kinds of instruction suited to students of various ages, to the development of their tastes in various directions, and to the necessities of their employment.

It was not, however, alone in these advanced and specialised branches of evening school work that the enterprise of the Manchester School Board was prominent. It was recognised by the Board, when they re-organised the ordinary night school system, that the spirit of the whole scheme should centre in the need that there must be a connecting link between the day schools and the evening schools, and in all parts

of the city where it was possible to obtain suitable buildings and to secure attendance evening schools were opened under experienced teachers, until Manchester was covered during the winter months with a perfect network of these schools. The Board had the satisfaction of handing over to the City Council a thoroughly well-organised system of evening schools, and it is pleasant for me to state that the City Council have during this the first session of united control taken up with vigour and extended the work on the lines originated by the School Board, lines which have proved by their success the practical wisdom of their inception.

Speaking generally of the instruction both in the day and evening schools, I think it cannot be denied that there has been an uplifting of the whole of the work during the past thirty years in Manchester. Advantage has been taken of every change offered in the Code for the development and extension of the courses of instruction. An illustration of this fact is seen in the extension of applied woodwork, one of the most important subjects that can be taught in the schools, because it enables boys to make in the workshop, by the aid of tools, graduated examples designed to teach the proper application of the hand and eye, and also to lead to the practical understanding of the use of the scale as applied to dimensions and craftsmanship generally. In the same direction cookery and laundry work have been taken up in the girls' schools, and there has also been a great advance in many of the infant schools, due, undoubtedly, to the rapid extension of well-planned and pleasantly-arranged rooms, with their necessary accompaniment of babies' rooms and the development of that delightful combination of well-regulated pastime and instruction known as the Kindergarten system, which has added so much that is delightful to the curriculum of the modern infants' school.

There are many important side-paths in the field of education in which the Manchester School Board have done important work. I would refer to the needs of afflicted children. Immediately legislative powers were given them the School Board saw to the education and training of all the blind and deaf

children in their district, and they were more than anxious to take up, at the earliest possible moment, the additional powers given them of dealing with another sadly-afflicted class of children. I refer to those mentally deficient. Two special day schools have already been built (perhaps there are no better in the country), where these children receive day instruction by skilled teachers arranged under medical direction of the highest possible kind, and where much good work is done for those children who up to even recent years were too often buffeted about during childhood, and who, if they survived to mature years, became a danger to society. Encouragement has been given by the School Board also to the residential homes established at Sandlebridge by the "Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded," whose successful and beneficent labours will always be associated with the name of Miss Mary Dendy.

For many years now the necessities of underfed children have engaged the attention of a number of people. Nearly thirty years ago, under the direct influence and encouragement of Mr. Herbert Birley, then chairman of the Board, practical effect was given to the desire to do something for children who came to school during the winter months insufficiently fed. Year by year food has been given, latterly by means of free dinners, to necessitous children attending the schools. The administration of this charity has been safeguarded in every possible way by inquiries conducted by the school attendance officers—than whom there can be no better agents for inquiry—into the circumstances of the parents, in order that none but those in whose homes there is necessity can receive this relief at the hands of the teachers. The mention of the teachers in connection with this work happily gives me an opportunity of recognising how much they have done in connection with the giving of free meals. Not only have they, in a large number of schools, devoted their own leisure to the care and attention of the children during meal times, but they have, by various means, raised fully one half of the not inconsiderable amount of money voluntarily subscribed to carry on the administration of this relief, for, as is probably

well known, it is against the law for any portion of the rates to be devoted to the giving of free meals to children in the schools.

For many years past the importance of inculcating lessons in thrift has received the attention of the School Board. In every one of the municipal schools there now exists a savings bank, and in these banks children may deposit small sums, and have the same transferred to the savings bank when they assume proportions sufficient to carry interest. Each year the transactions in these savings banks have increased, and since their commencement to the end of last November the transactions numbered nearly 10,000,000. During the year ended November, 1903, the deposits amounted to £22,324, and it may be added also that since their commencement a no less sum than £309,600 has been deposited. This system of school banks will shortly be extended to all the schools of the city.

We hear a great deal now-a-days about the deterioration of the physical condition of the people. So far as Manchester children are concerned, I do not believe there has been any deterioration. I recently had an opportunity of examining some photographs, taken twenty years ago, of a class of school children in one of the poorer schools of the city, and of comparing them with photographs of a like class of to-day. The evidence in favour of the children now in the schools was remarkable in many ways, but particularly with regard to their physical appearance, and also, which is of considerable importance, the remarkable improvement which has taken place in their clothing. I can well remember that it would have been a matter of remark in some of the poorer schools thirty years ago to see a boy wearing a clean linen collar, and the numbers who came without shoes or stockings were a pitiable sight. Now there is a great change. Unhappily it cannot be denied that there is still considerable poverty in many of our districts, but I think—and in this I am supported by the opinion of the most experienced teachers and inspectors of my acquaintance—that there can be no possible denial of the fact that the past generation has seen a very great improvement in the physical and mental condition of the children attending our public elementary schools.

The School Board have not been unmindful of how much can be done in this direction by a properly thought out system of physical exercise. During the last year of their office, through the agency of a most experienced instructor, they have trained a large number of teachers, who are now competent to take physical exercises in the schools, and the time will not be very far distant when in every school in Manchester there will be carried out on the most efficient and practical lines a well-arranged and organised system of physical exercises of proved excellence for children of all ages. The health of the schools at all times received the careful attention of the School Board. The Board, in every possible way, seconded the efforts of the Health Department of the city to check the spread of infectious disease amongst the children. One of the last appointments made by the School Board was that of a Medical Officer specially charged with this important work.

Now, in conclusion, may I briefly be allowed to summarise some of the grounds which I think can be put forward for saying that the Manchester School Board may claim to have fulfilled the best intentions of the authors of the Education Act of 1870, and to have done a great work in preparing the way for the full realisation of a truly national system of public education for the city.

1. Compulsory attendance at school has been a complete success. Whilst in 1870 only 7 per cent of the population was represented by the average attendance of the school children, to-day the percentage is 17 per cent. Had matters of attendance stood to-day at the condition the School Board found them in 1870, we should have only had 39,850 children in average attendance at the public elementary schools of the city, compared with the existing average attendance of 95,017. Habits of regularity and good training in the schools have played a great part in improving the condition of the people.

2. By reason of a care of the wayward, the poorest, and the criminally inclined, the School Board rescued, through the agency of the industrial schools, thousands of children who would other-

wise have drifted into crime and misery—a danger to society and a curse to themselves.

3. Through the action of the Board street hawking has been controlled in Manchester, and legislation obtained which will extend the like control throughout the country. Thus the supply of much that is evil and of the direst consequences to innocent and helpless children is within sight of being seriously grappled with. With regard to street selling by children, the saddest aspect of the whole case was the dreadful fate of many of the girls—ruined at an age when they could barely understand the horror of it all.

4. The School Board during their term of office built 40 schools, and thus met in a large measure the continually growing needs of the district for improved school accommodation. At the time when the work was transferred to the City Council there were in the Board schools 53,674 scholars, out of a total number of 107,113 in the whole of the public elementary schools of the city.

5. The night school work, as developed and improved by the School Board, dealt with 14,800 enrolled students of all ages beyond the ordinary school age. And the success which attended this branch of the Board's work led to the Manchester scheme of evening schools being adopted to a large extent in the Regulations issued by the Board of Education, and also contributed in a marked degree to the great revival of interest in the work of continuation schools which has characterised the public administration of popular education during the past dozen years.

6. In other directions the School Board has, by practical work, set an example—with regard to the inculcation of lessons of thrift by means of the schools savings banks, the care of defective children, and the carrying out of the law with regard to the education and training of the deaf and blind. At the same time Manchester has been to the fore in such matters as the feeding of destitute school children and the teaching of swimming and the provision of physical exercises in the public elementary schools.

I fear that I have somewhat inadequately performed my task. I would like, in conclusion, to pay a tribute of respect to the many members of the Manchester School Board, numbering amongst them some of the best of our citizens, who during this long period of work have, by their interest in the spread of education and by their self-denying labours, carried on the work of the Board, in the face of many difficulties, in a manner which redounds to the credit of the city.

It has been my privilege to know all the men and women who have been members of the Board, and I consider it to have been the highest privilege of my life to have been associated with them. During the period the Board had four chairman—First, Mr. Herbert Birley, who presided for eighteen years; second, Rev. J. Nunn, who was chairman three years; third, Rev. Canon J. Davenport Kelly—rather more than a year, succeeding the death of Mr. Birley; and fourth, the Dean of Manchester, who was chairman for the space of twelve years.

The first clerk was Mr. Frank Orde Ruspini, a man of singularly gentle and blameless life, who, appointed in 1870, was unhappily obliged to retire owing to ill health in 1886, an event which he did not long survive. I knew him practically from the first, and I am glad to be able to pay a tribute of respect to his memory.

The Board had in their service at June last 1,800 teachers of all classes. These have, with the officials, now entered the service of the City Council. It is, in the main, to the teachers of the schools that we must look for success. Of those in the employ of the city I can bear the highest testimony for good work, zealously performed.

The City Council has now entered into the work of the School Board. Many of us, no doubt, believe that it is a good thing that the important work of education should be in the hands of the Municipalities and County Councils, so that increased opportunities—unfettered by many of the difficulties which surrounded the School Boards—may be given for the better education of the people. Our satisfaction on this account need not make us

forget the noble work accomplished by the School Boards. What the progress of education has been during the period which has elapsed since the passing of Mr. Forster's Act may well be summed up in the words of Mr. Michael Sadler:—

"It is hardly too much to say that the years which have elapsed since the passing of Forster's Act have witnessed, especially in the towns, the growth of a new public sentiment in favour of education. Noble, indeed, were the sacrifices which were made by religious denominations, by societies, and by individual benefactors for popular education in England before that date. Those efforts laid the foundation necessary to all later success. But they were hampered by the apathy of the masses of the people, for no system of national education can become or remain effective without popular sympathy and interest. Since 1870, however, the attitude of the nation, as a whole, towards elementary education has undergone a surprising change. The value of a good school has become more widely appreciated, and parents evince an increasing desire to secure the benefits of efficient teaching for their children. This change in public opinion has made possible much which the zeal of educational reformers, the goodwill of local authorities, the liberality of subscribers, and the experience and devotion of the teachers would otherwise have been powerless to effect. It has permitted great expenditure in order that, within the lifetime of a single generation, dangerous deficiencies might be removed. It has allowed gradual improvements to be made in the equipment of the schools, and in the conditions of attendance. It has created, in a great number of places, the atmosphere of sympathy and encouragement which is necessary to the welfare of schools, and the change may be traced to a growing belief in the value and necessity of education, which cannot fail to increase the number of persons competent to take part in the local administration of educational affairs, and thus to form the best guarantee for wise advance, intelligent criticism, and prudent expenditure in the future."

Mr. Sadler's opinion was expressed before the abolition of the School Boards, but is equally true of the position reached when

such Boards ceased to exist. These School Boards were not only happy in their work—and deserve all the felicitations they are ever likely to receive—but I venture to think they are to be congratulated in their removal, seeing that it has been brought about by the establishment of a new form of local education authority likely to bring to a fuller fruition all the cherished aspirations of those who made the School Boards all that they were at the best, for I do not claim perfection even for them. Their successors will undoubtedly have difficulties of their own to encounter, but they possess far more extensive powers. It is not my intention to enumerate all the benefits which will accrue from the Education Act of 1902, but, in words which I have used elsewhere, I should blame myself did I not refer to the greatest benefit of all which will be undoubtedly derived. For the last thirty years the greater proportion of the children of England and Wales have been deprived of the benefits enjoyed by the children who have attended Board schools. Step by step the position of the voluntary schools has rapidly approached the region of impossibility. Various expedients have been adopted to meet the needs of their case. Doles have proved inefficient. Teachers and children have suffered. The Board schools have also felt the mischief of belonging to one of two classes of schools—mischief arising through the natural jealousies, and frequently the opposition, of those members of School Boards who felt the hopelessness of the contest. Now these difficulties will be removed. The difficulty of maintenance is gone, and all children will be treated alike in the matter of their teaching and the equipment of their schools.

The authorities now established possess the most ample powers for furthering all kinds of education. Primary and secondary schools will benefit, and there should be no more impediments in the way of pupils endowed with exceptional abilities. A new race of teachers will arise, whose training will be fostered in a way which has hitherto only been trodden by the few. It should no longer be the complaint of the technical schools that far too many pupils present themselves badly equipped for enjoying the great advantages these schools are prepared to bestow, and

throughout all branches of instruction we are justified in hoping for a great advance and a great improvement. With such a prospect for the education of the nation in the future the School Boards may be well content, having in their day and generation laboured to bring about such a great consummation, and satisfied that they are able to bequeath to the County Councils a rich heritage of experience, accumulated during thirty-two years of strenuous labour for the progress and welfare of their fellow-citizens.

MANCHESTER STATISTICAL SOCIETY.

Some Problems of Local Government.

By F. Brocklehurst, M.A.

Read January 13th, 1904.

In discussing the issues raised by the title of this paper, it will be necessary to differentiate between the principles and the problems of local government. The principles of local government have remained the same since the foundation of human society. The problems created by the application of those principles have varied with each succeeding age. Civilised society has at all times agreed upon the common principle that it was better for collective concerns to be managed collectively, whether such concerns related to the provision of roads, water, illumination, amusements, or anything else. This fact has escaped the minds of those who are opposed to what they are pleased to describe as municipal trading. During recent years an attempt has been made to raise this question as though it were novel, whereas municipal enterprise is as old as civilisation itself. We cannot forget that Rome in its palmy days provided municipal baths and aqueducts, and spent public funds upon the establishment and maintenance of theatres. We have followed their lead, so far as it applies to the provision of pure water, and it is remarkable that the advocates of municipal theatres in England are viewed as the promulgators of novel semi-socialist ideas.

Whilst, therefore, we have agreed upon the general principle that it is better for a community to collectively manage its communal affairs in the public interest, no limit has yet been set

to the scope of this public activity. Where can the limits of municipal enterprise lie? Who can attempt to define them? Our opinions upon questions of this kind are largely determined by our experience and needs, and it is the mere fact that a new scheme of municipal enterprise is unfamiliar which places large numbers of persons in opposition thereto. Every advancement in municipal enterprise is dubbed "socialistic," and those who apply this term to it imagine that in so doing they write its condemnation. But, leaving out Imperial Rome, and coming back to Manchester, will it be assumed that the Police Commissioners who existed prior to the incorporation of the city were socialists? The answer must be in the negative. And yet these Police Commissioners obtained powers to light the town with gas in 1824, which powers were transferred to the Corporation in 1843; and in the year 1847 the water company which had previously existed in Manchester was bought out by the Corporation. Were these socialistic enterprises? If they were, we should require to give a new meaning to the term socialist. Here we have the whole principle conceded. It was better for the municipality to provide for its own wants than to leave them to the haphazard determination of private enterprise motived by self-interest.

Who, then, can set bounds to collective demands? Have we not, in Manchester, spent millions upon the development of the great waterway which connects Manchester with the sea? At a recent meeting of the Manchester Ship Canal Company, Mr. Bythell is reported as saying that the Corporation of Bristol had obtained powers to spend between two and three millions; and that they were spending that money on the construction of a new dock at Avonmouth, seven miles below the city. He also reminded his hearers that the Port of London Bill, then before Parliament, provided for the formation of a commission which was to buy up all the existing dock companies, and spend five millions in increasing the dock accommodation, and the whole of that expenditure was to be guaranteed by the London County Council. He added that one of the most striking features of that bill was that it provided that two-and-half millions should

be expended during a period of ten years by the London County Council and the City of London in deepening and improving access to the docks by means of the river Thames. That money, he said, was to be raised on the rates, and was not to be a charge on the port. These words express the approbative mind of Mr. Bythell in regard to this latest development of municipal activity, and no one can allege that Mr. Bythell is tinged in the slightest degree with socialistic opinions. The Port of London Bill registers a belief held by Parliament that the London docks are suffering as the consequence of their being owned and managed by private companies, and that their proper development depends ultimately upon their public control. Several municipalities have of late undertaken the provision of humanised milk for infants—notably St. Helens and Battersea. Who would have said a few years ago that this was a legitimate sphere of municipal enterprise? But who would say to-day that it is not? The selling of this prepared milk has been determined solely by public considerations. The abnormal death rate amongst infants caused inquiries to be made as to the origin of this excessive mortality, and improper food and malnutrition were found to be amongst the chief operating influences in the production of these unfortunate results. Strange as it may seem, it is, nevertheless, true that the provision of milk for infants is organically connected with the public duty of keeping the streets clean, of providing a good and pure water supply, and the other multifarious duties relating to public health which are conceded to belong to the municipality even by the opponents of municipal enterprise. For if it be one of the primary duties of a public body to safeguard the health and physical wellbeing of its component elements, the duty is cast upon it of reducing infantile mortality, and of securing, as far as lies within its power, the conditions under which the future citizens of the country may grow to be healthy and strong. To turn to another aspect of municipal work involving moral control of large numbers of children. It may have been noticed that in the streets of Manchester the children who sell newspapers, matches, flowers, and other commodities of a similar character wear a small badge

*

on the left arm. This is the outward and visible sign of certain street-trading regulations, which have now been in operation within the city for about two years. The influences of the streets of a great city are recognised on all hands as not being of the best moral character, and it was partly to protect these juveniles from the worst forms which these temptations assume that the street-trading regulations were inaugurated. The street trader may not beg, neither may he enter a public-house in order to ply his calling; he must also be decently clad, and trade only within certain specified hours. Is not this a public regulation of a most beneficial character? And yet in its principle it makes the municipality the foster-parent of all the children who trade in the streets. The Employment of Children Act, which came into force on the first of the present month, extends the benefit of these provisions to the whole country, and also enables local governing bodies to frame rules under which the employment of school children for gain may be completely regulated.

Within the last few years the great mortality due to the prevalence of consumption in urban areas has received special attention, and means have been taken in Manchester whereby the life history of the disease may be traced. A special department under the Medical Officer of Health has been established for the sole purpose of tabulating consumption statistics, and although the notification of the disease is purely voluntary the scheme has attained a considerable measure of success. The town has been mapped into districts. Cases of consumption arising within these areas are all notified under their proper head; attempts are made to trace the genesis of the disease, and to register its development in the individual attacked. The information thus recorded ranks among the most interesting archives of municipal activity. Not only is the course and spread and growth of the disease itself registered, but educative work is also performed, with the object of arresting its dissemination amongst healthy citizens. From consumption, let us turn to inebriety. The prevention and cure of drunkenness is one of the latest duties imposed by Parliament upon local governing bodies throughout the country. Locally, the Lancashire County

Council and the County Borough Councils of Lancashire, with the exception of Oldham, have combined for the purpose of erecting and maintaining a great establishment at Langho for treating inebriate subjects. Surely, after this, who can set a limit to the moral obligations and duties of public bodies? In the sphere of education, again, the work of a municipal authority has been vastly increased within recent years. The duties and functions of the old School Boards have been transferred to the local councils. They have been for some time authorised to spend money upon technical education, and, on the whole—even before the passing of the last Education Act—spending that money wisely. Many of them have been fired with the newer ambition to either establish or to assist in the maintenance of municipal universities. They have also spent large sums of money upon the purchase of pictures and other artistic objects. The artists are to-day finding corporate bodies their most valuable customers. In our own Town Hall organ music has been discoursed for some considerable time. Municipal concerts have now been inaugurated for the winter months—a fitting development, truly, of the bands of music in the parks, which we have enjoyed on the summer afternoons and evenings for two or three years. Or, to quote another illustration, the refuse and garbage of the city has been conveyed to Chat Moss, and by its means it has been reclaimed from barren peat land and converted into a smiling agricultural area. It is now managed in such fashion as to have earned the comment of a London newspaper that "it looks like successful farming." In Glasgow a municipal telephone service has been provided at the public cost, and it bids fair to rank amongst the most successful of all the undertakings hitherto credited to that most enterprising municipality. In Bradford, Yorkshire, the trade of the district has been enormously assisted by the establishment of a conditioning house, where the wool fibre utilised in the industry is conditioned or sized, where the quality of the material is determined, and upon the certificates of which vast quantities of wool are annually bought and sold. A proposal has already been under consideration in the Manchester Council for the transference of the Chamber of Commerce

testing house to the municipality. This project has received favourable consideration at the hands of the Chamber of Commerce itself, and were it to reach fruition it is certain that it would produce most advantageous results to the whole of the trades and industries now operating within the area of Manchester's influences. These are some of the things which corporations have been called upon to do in recent years in the application of the general principle that communal interests should be looked after by the communities themselves. Municipal trading, municipal enterprise, municipal socialism, whichever term may be preferred, is therefore not only no new thing, but is also one of those things to which it is impossible to fix limits. Where it can be demonstrated that the municipality can do something for itself in a way better and more convenient than it can be done for it by private individuals, there we see something which it would be folly to leave in private hands. The root principle having been conceded, everything else follows naturally. The only thing which it is necessary for us to safeguard ourselves against is the unnatural or premature application of the sound principle upon which we are all agreed. One of the chief problems confronting modern municipalities is not whether this or that should be in municipal hands, but whether the time is ripe and public opinion is prepared for the assumption of such responsibliities. In considering the work of municipalities, I have not, in the subjects enumerated, dealt with the familiar ones of municipal tram service, supply of electricity, maintenance of roads, cleansing of streets, purification of sewage, and the thousand and one activities associated with municipal life. I have dealt chiefly with the more recent developments of the University, of the Ship Canal, infant and child protection, the prevention of consumption, the cure of inebriety, the unification of our educational system, the entrance of municipalities in the sphere of art and music, their successful management of farming estates, and the assistance which they are rendering to commerce by means of telephones and the testing of materials.

These interesting developments in the sphere of municipal activity have all taken place within the last few years, and

they point to the indefiniteness of the horizon which lies in front of us. They indicate that the work of a municipality will command the sympathetic admiration, if not support, of all sorts and conditions of men. To a degree hitherto undreamt of, professional, business, commercial, as well as working men, will find in the future an ample scope for the exercise of their trained abilities and peculiar knowledge. The multiplicity and diversity of municipal undertakings and work will, in the long run, find their reflection in a more diversified personnel among our public representatives. I hear it said at this juncture that the expanding work of the municipality, with its promise of still greater expansion in the future towards an indefinite and as yet unknown horizon, will place such a burden of responsibility and a weight of work upon our elected representatives that they will be unable to discharge their duties effectively. I am well aware that at the present time the principals of our public bodies are considerably overworked; but there is a means by which their labours may be lightened and greater public efficiency secured. It is the custom in the majority of the public bodies to have large committees composed of from 15 to 25 members. We are all aware of the fact that where such a number of men is charged with the fulfilment of specified duties the responsibility is actually borne by a few who manage, whilst the many back-up what they have done. A large committee is of value only when its proceedings require to be confirmed by the council, in which case collective loyalty determines their action. This unanimity gives facility to the passage of their proceedings through the council, but facilities of this kind can be too dearly bought. They are purchased at the present time at the expense of overworked members of the council. If the number of members of the committees were halved, the working capacity of the council would be doubled without any loss of efficiency.

The prophecy of the expansiveness of municipal undertakings raises at once the problem of the character and type of men attracted by the honours as well as by the duties and responsibilities of public life. We, in Manchester, have heard it

said on more than one occasion that leading men do not enter the council. I myself cannot accept the truth of such a statement. A council which can command the services of men like Sir John Harwood, Sir James Hoy, Alderman Southern, and Alderman Vaudrey can claim to have drawn within it leading citizens who take equal rank with any other of our men of note. It is equally true that there is a section of the council unknown to fame, and whose only apparent recommendation for election is that their names are familiar in their localities. Their presence in the council may be deprecated too greatly. It should be remembered that a municipality is engaged in the consideration of problems which affect its several districts as well as the city as a whole, and the parish politician is as much required in our council chambers as the civic statesman. Yet, it will be readily acknowledged that if the average type of representative could be raised it would be an advantage to the public. How is this improvement to be effected? One remedy that is suggested is the exclusion of politics from municipal contests. As an ideal this is desirable, but it is questionable whether the ideal will ever be realised. Very little harm results from the political battles which occur each November, and but little disadvantage, if any, is produced by them if those who are elected cease to be politicians the moment they take their seats, and become, as they should do, administrators of public laws and the propounders of public policies. We have, on one or two occasions, been advised to eschew party politics in municipal elections, and the means proposed for their exclusion is the establishment of associations of ratepayers. Ratepayers' associations have not hitherto been in good odour. In the majority of instances they have been composed of men whose primary object was not the public good or the advancement of schemes conducive to that end, but the reduction of rates to the lowest possible minimum. After all, there are questions of far higher moment than that of a lowered rate, desirable as this in itself may be. If these belauded associations of ratepayers were asked to undertake the conduct of elections, every practised politician knows that such bodies would be futile

in politics. An inchoate association of well-meaning citizens would be perfectly valueless in a political contest. Elections are won by organisation, and, as a rule, these associations are absolutely lacking in this essential particular. For some time to come, therefore, those who desire to gain seats on our public bodies must pass through the ordeal of a contested election, and in such contests they must be dependent upon the assistance rendered to them by political organisations. A confession of this character explains the preponderance of what I have termed local men in our civic councils. Those who are desirous of becoming public representatives are dependent for their selection upon some ward club which often meets in an obscure street, and with which the merchant, manufacturer, banker, or professional man is not personally acquainted. Under these circumstances the local man who attends the club nightly, and becomes hail-fellow-well-met is selected, where, but for the existence of such circumstances, political and social, a better man might have been sent to serve the ratepayers. This evil result would perhaps be obviated were there to be established a closer touch between the outlying sections of each political organisation and its central head. I am not in a position to absolutely dogmatise upon this question, but it seems to me that by the exercise of more parental control on the part of those possessed of a broader public spirit than is possible in the ward, and by the guidance which those at the head of affairs can give in the selection of candidates, we should be more likely to secure that wider representation of commercial, professional, and trained intellects which it is desirable to see associated with our public affairs. This, coupled with the diversity of attraction which I have suggested as the outcome of the growth of municipal activity, will, I am convinced, solve to a very large degree the personal problem which confronts our municipalities to-day. I am not unaware of the forces operating to prevent such a solution both political and social, neither am I unobservant of the fact that through the rapidity of transit men of position and influence are slowly retiring from close connection with the communities in which their wealth is made. During recent years Blackpool, St. Annes,

and Lytham, for example, have become mere suburbs of Manchester; but although this centrifugal tendency is likely enough to increase, yet there will always remain either on the outskirts or within easy reach of a great town a sufficient number of capable men ready to discharge the obligations of public life.

The growth of municipal undertakings, some of which have assumed mammoth proportions—our tramways, electricity, water, gas, markets, to wit—indicates the necessity for trained business intelligence at the head of our public affairs. Every member of the Manchester Council is a director of a concern which had in 1902-3 a turnover (being the total receipts and payments) of £12,573,611 8s. He is the direct overseer of property and undertakings the capital value of which is estimated to be £27,363,989, and in a special sense he is responsible for liabilities (including a loan debt of £19,610,014) amounting to £21,697,812. Each member of the Tramways Committee is the direct employer of 3,344 persons, and was the disposer of profits amounting in the aggregate to nearly £70,000 during the past financial year. If we look at things from another standpoint, we find that the annual income of the Manchester Corporation in 1902-3 was £2,851,884. Each member of the Council had a direct voice in the spending of this vast sum in the interests of the entire community. Who in the face of these simple figures can say that we can do without business experience or intelligence in the management of our public affairs? What business undertaking is there in the city with a turnover so large as that of the Manchester Corporation? The Manchester Corporation, in truth, is an aggregation, or trust, or combine of sixteen or seventeen huge commercial undertakings. It is in the highest degree essential, therefore, that the ratepayers should send business-minded men to represent them. I venture to qualify this statement somewhat, and add the words—men with a capacity of speech as well as possessed of business instinct and social ideals. The Corporation is unlike a commercial house in that it requires sometimes to be persuaded to the adoption of a novel policy. Commercial undertakings grow naturally without the aid of oratory, but he who would influence the

course and conduct of public affairs must be possessed of a silvern tongue. It is all very well for men who cannot frame a consecutive speech of fifty words to be recommended to the support of the ratepayers on the ground that though they are no talkers they are good workers. My experience is that those who cannot speak upon the platform or in the forum are negligible quantities in the committee-rooms where the business of municipalities is done.

A second problem arising from the same facts regarding the growth and expansiveness of municipal undertakings is that which is concerned with the staffing of our public service. In this respect our municipalities must not be governed by considerations which have dominated societies such as the Wholesale Co-operative Society. A workman in receipt of one or two pounds a week looks upon a salary of one or two thousand pounds a year as an extravagant waste of public money. It may be waste to pay such a wage, or, on the other hand, it may be the manifestation of strictest economy. Let us recall what capital values are at risk in our great municipal undertakings. With so much capital at stake it would be folly in the extreme to get mediocre men to manage them. A municipality must be able to command the best services available in the open market. It must, if anything, be better able to compete for such skilled labour than private employers. Corporate needs for highly-skilled intelligence are vastly greater than those of private firms. The private employer risks his capital as well as his industrial position in the person of his manager; but if a councillor neglects his public duties by either employing an indifferent servant or permitting even a good one to carry out a blundering policy, his only punishment is the loss of his seat. It is, therefore, essential in the highest degree that the permanent officials, upon whom the vastness of the burden ultimately rests, should be men of the highest capacity, probity, and intelligence. It is impossible to obtain such officials unless they are paid at least as much as they can command in the world of commerce and trade. The same principles should govern a municipality in its treatment of all its servants from the highest to the lowest. Poorly-paid labour is inefficient and

dear. A satisfied servant works with a greater heart and therefore with greater effectiveness than one who is permanently discontented. High wages attract efficiency and also induce it. Apart from the economic question of the increased purchasing power due to high wages, which diffuses wealth amongst the middle classes much more efficiently than any other method known to man, a community is the gainer in every respect which treats its public servants well.

The increase in the number of our public servants—Manchester employs no fewer than 17,513 persons—raises a political problem of some magnitude. The great majority of these employés possess votes, and, were they to be united in their motives and action, could undoubtedly exercise considerable influence during an election. It has been predicted that in time to come they will exercise so great a power in political contests that public representatives will be the mere puppets in the hands of their employés, and that the latter will exercise their political power with the object of squeezing concession after concession out of municipal candidates. I do not see that any such danger is immediately in front of us. Proportioned to the rest of the population, our public servants are in a great minority, and they could never be induced to act in concert. There is no community of feeling and but little of interest between a street pavior and a policeman, and a social gulf divides both these classes of workers from clerks and electrical engineers. But were they in some as yet inscrutable fashion to bridge over their differences and with united voice make demands which were judged by the man-in-the-street to be unjust, the average common sense of the British people would re-assert itself to the overthrow of such selfish interests. Our officials and the other paid labour employed by municipalities can command public sympathy and support so long only as their demands are reasonable. Should they ever overstep the bounds of reason, the other sections of the community would unite against them, and exercise the necessary balancing force.

The growth in the number and magnitude of modern municipal undertakings raises a problem of another kind. We have heard

a great deal recently about the manner in which municipal accounts are kept. This is a subject too great to be entered into fully now, but I am convinced that some change is necessary in our system of audit. I am not prepared to advocate the extension of the Local Government audit to Borough Councils. The interference of a London official in every trifling detail of municipal expenditure is not a desirable thing either from the standpoint of administrative facility or of public advantage. Yet some better system of accountancy is required in order to guarantee that the accounts of each municipality give a correct statement annually of the position of its trading concerns. In this connection let me quote from a speech delivered by Sir Michael Hicks-Beach at the opening of the Cheltenham Town Hall on December 5th last, and reported in the *Manchester Guardian* on the following Monday morning. In the course of his remarks, Sir Michael said that "There was in some quarters a strong feeling against what was called municipal trading. He did not think that anything they had done there could properly be described as having gone beyond the true function of a municipality. Even if it were, he would venture to say, for his own part, that if a municipality took care that its constituent ratepayers had as full and as simple a means of knowing what it was doing as the shareholders of a well-managed company there need not be much fear for the proper administration of affairs. It seemed to him vital that in all these matters the ratepayers should have periodically placed before them the fullest and the clearest accounts of the assets of their several undertakings, of the profit or the loss which might be incurred by any of them, of the necessary provision for depreciation of plant, and, lastly, and by no means the least, particulars of the provision made for repaying loans, not out of further loans, but out of revenue. To secure themselves there must also be a proper audit of municipal accounts of all kinds, conducted by qualified and experienced auditors, who would show to the most unskilled persons precisely what the rates of the municipality had been spent for and what advantages they had secured." For my own part, I think that the objects desired by Sir Michael Hicks-Beach

may be achieved by raising the status of what are now termed professional auditors, by giving to them a fixity of tenure extended over a period of, say, five years, combined with authority to publish irregularities in business methods, and to determine the form and manner of the statement of accounts. Some such reform is essential if the jerrymandering of accounts which undoubtedly takes place in some corporations is to be stopped. It is a sound business axiom that every tub should stand on its own bottom; but this principle is violated when one department of a corporation is charged by another a higher price for its commodities than would be charged to the general public under similar circumstances, with the ill-concealed object of buttressing a weak undertaking, and of avoiding a direct call upon the rates. Some change is necessary. The present system of audit by the Elective Auditors is a complete farce. These gentlemen have no power to surcharge; they are elected in the majority of instances by an infinitesimal proportion of the rate-payers; they are frequently engineered into their positions from motives of political hostility or expediency; and they are not required to possess a scrap of knowledge either of accounts or of public affairs. Whilst desiring in the main to do good, these gentlemen have done a vast amount of harm. They have created the impression, based, however, upon the slightest possible foundation, that a modern British municipality is a corrupt body, and that its members spend their time in feastings and carousings out of the public purse. No greater libel could be passed upon our public representatives than this. As a whole, they are like Cæsar's wife—"above suspicion." They labour unceasingly in the public interest, without hope of either pay or reward. They engineer vast schemes through Parliament, and attend to the daily drudgery and routine of public administration, involving the sacrifice of a large proportion of their private time and, it may be added, in some cases of their personal means. These labours are forgotten if only an Elective Auditor can get hold of a luncheon account with spicy items relative to the price of green peas, strawberries, cigars, champagne, and the like. It is certainly undesirable that our public representatives should be

unduly associated in the public mind with events of this character, but it should be remembered that they are necessary adjuncts to the corporate life of a city, and that our councillors are not to be blamed for the perpetuation of a system which they did not create, and which they have but little power to eradicate. Apart from these methods of public service, by which, needless to say, greater notoriety is gained than by a careful checking of accounts, the Elective Auditors have but little claim either upon our admiration or gratitude, and, were they to pass into the limbo of forgetfulness, municipal government would not greatly lose. Their powers are practically nil; they possess no more authority to enforce their opinions than is possessed by any ordinary citizen. They cannot question the validity of a payment made by a Borough Council other than by the ordinary processes of law, which are open to every ratepayer. An order of the council for the payment of money out of the borough fund may (so Mr. Alexander Macmorran, K.C., tells us) be removed into the King's Bench Division of the High Court of Justice by writ of certiorari, and may be wholly or partly disallowed or confirmed on the hearing. This is the only way in which at the present time the validity of such payments may be questioned. Some further control of public accounts should be given, but it will be agreed that this ought not to be extended to the Elective Auditors. Their office should be abolished, and a legal status and greater power should be conferred upon what are now termed the professional auditors. These should be thoroughly-trained accountants, and their appointment should require the endorsement of the Local Government Board.

A problem which has received very considerable attention of late, but which has not met with its proper solution, is that of the amalgamation or federation of a large city with its adjacent urban districts. Through the development of the means of transit, cities are becoming gradually divided into working and sleeping places. We have moved greatly since the time when merchants lived within walking distance of their warehouses, and when shop-keepers resided over their establishments. The iron horse and the electric car have changed the whole face of things.

A revelation of this altered circumstance is afforded by each railway terminus in Manchester between the hours of 8 and 10 o'clock a.m. and 5 and 7 o'clock in the evening. Manchester has become a place in which money is made and partly spent. Its suburban districts are those in which the bulk of its workers find their evening's repose. If we turn to these outer districts we find that during recent years, and owing to successive Acts of Parliament, a large amount of public spirit has been generated and developed. These lesser communities have been dignified in numberless ways. New powers have been conferred upon them, and as a consequent thereof they have, both in isolation and also through their central association, made their power and influence and, if the term may be permitted, their personality felt. The spirit of independence thus developed has undoubtedly contributed to increased efficiency in the administration of their local affairs. They are making haste to supply the defects of their predecessors, and in so doing are following in the wake of the larger community on whose fringe they repose. Apathy has given place to energy and enterprise, and the net result is seen in the increased rates which they demand from their residents. In fact, it seems as though the question of the absorption, or amalgamation, or federation—whichever term we desire to use—of these lesser bodies in the greater community, of which they are in reality an integral part, will be settled more by financial considerations than by anything else. A large community, with its great rateable value, can do easily that which a small community can only perform with great difficulty. These communities are, therefore, presented with the horns of a dilemma. They may either cultivate their local spirit and life at the cost of unduly heavy rates, or they may impale themselves upon the alternative horn of absorption in the life of their greater neighbour. These are the problems which at the moment are exercising the minds of the lesser authorities surrounding Manchester. It must be confessed that the question has never presented itself in the light of a problem to the city. The city has at all times been prepared to absorb all comers, though it must be confessed that financially the city has hitherto had but

little to gain from their absorption. The only ground upon which the unification of our local life may properly be urged is that of efficiency of administration and the avoidance of collision in the carrying out of large undertakings. Mere bigness for bigness' sake should never be put forward in favour of the extension of the city. The main objection which has been urged against this extension, and the one which possesses the greatest weight, is that the centralisation of all self-governing functions in one building placed miles away from its circumference will involve waste of time, and lead to inefficiency of administration. The farther the heart is from its extremities, the greater force is required to nourish those extremities with vital fluid. Such is the simple illustration of a problem which is, however, more easy of solution now than it ever was before. Steam and electricity have minimised distances and brought peoples into connection who were aforetime divided miles apart. But rapidity of transit is not everything. Local sentiment counts for a great deal in public affairs, and although amalgamation is, theoretically, an ideal system of unification, yet in practice I venture to think that some form of federation which reserves a certain degree of autonomy to each individual district whilst uniting them under a common form of local government for big questions is the best way of solving our present-day municipal problem. It is impossible for me within the brief limits of a paper of this kind to indicate, other than in rough outline, the questions which may with advantage be left to be managed by local district councils. The example set by the Withington Council is one which is worthy of sequence. The cleansing and lighting of streets, the removal of refuse, the paving of bye-roads, are among the things which may, with safety, be left to be managed by a local council acting within the prescribed limits of a financial budget laid down at the commencement of each recurring year. The government of the tramway system; the provision of water, gas, electricity; the management of education; the supply of telephones; the maintenance of main roads and sewers; the promotion of Parliamentary bills; the holding of Local Government inquiries:

these are among the questions which can only be fully dealt with by a central council whose outlook is as wide as the city itself.

The growth of our urban populations suggests the question as to what are to be their future relations with the central government. To the observant mind two tendencies are perceivable: the one that our great cities are becoming greater, the other that the powers of the central authorities are being continuously increased by Parliament. Is it not anomalous that a great city like Manchester cannot spend its own money without laying the minutest detail of such expenditure before a body of London officials who are thoroughly unacquainted with the details of our local administration and life? We ought to possess more Municipal Home Rule. Our present links with the central authority are exceedingly close. Some of these links produce beneficent results; others are working hindrances and limitations. The efficiency of the police, for example, is maintained by Exchequer grants and by the annual inspection of the Home Office. The educational budget is subject to the Local Government audit. The curriculum of our schools is determined by the Education Code, the administration of which is supervised by a body of inspectors. Before we lay out a penny upon schemes involving capital expenditure we must first obtain the sanction of the Local Government Board. If novel powers are desired, or we wish to extend the scope of an authority already obtained, it is incumbent upon municipal bodies that they should pass bills through both Houses of Parliament. The fundamental principle governing local administration in this country is that all law is the creation of Parliament, and that lesser governing bodies can only act by virtue of an authority given to them by the Legislature. The principle is undoubtedly a sound one, and it cannot be varied to an essential degree, but greater elasticity should be given in its working. Within limits which I dare not at present attempt to define a municipal body should be permitted to spend moneys upon objects deemed necessary to its welfare by its elected representatives whenever such expenditure is ratified by the direct vote of its citizens, without the trouble and expense involved in the passing of

measures through Parliament. I am afraid that such a demand is not likely to be acceded to within a reasonable distance of time, but Parliament may at least simplify its own procedure, and thus halve the cost of municipal legislation. By a juncture of the Committees of both Houses of Parliament this simple reform would be achieved. The line of ultimate and of greatest advantage is, however, that of the devolution of larger powers upon the great self-governing communities in these Islands. Parliament would thus relieve itself of a large amount of unnecessary labour, would thereby be free to devote its greater energies to Imperial questions, and municipal government would be the gainer in that its affairs would be dealt with by those who were cognisant of the principles as well as of the details involved. I am not suggesting that local governing bodies should be entirely relieved of the oversight of the central executive—far be it from me to suggest any such thing. If a local scheme were opposed by anything like a considerable minority of its citizens, such scheme could only be settled in a satisfactory manner by the judgment of a perfectly independent body of men. Such a body of men is to be found in the Committees of both Houses of Parliament. With these safeguards, financial and elective, I see no reason why local self-governing bodies in this country should not be empowered to act with greater freedom and with less centralised restriction.

I have already hinted that it would be a good thing if, in some respects, the influence of our central governing offices could be increased. The general efficiency of the police service in rural districts is in striking contrast to the insufficiency of water supply, of housing accommodation, and sanitary conveniences. Even some urban centres are considerably behind others in these important respects. It would be well, were it possible, for the central authorities—the Local Government Board, the Board of Agriculture, the Privy Council, to wit—to take as a standard, some well-governed community whose amenities of life were of the highest and best kind, and to impose a similar standard upon every other backward community in the land. They might, for example, take an average death-rate as the lowest

death-rate permissible, and, just as now the Mersey and Irwell Board can hale delinquent authorities before the Courts for their neglect of the sewage problem, so it should be within the power of the central authority—acting, mayhap, through local administrators—to in some way penalise those authorities whose high death-rate lowered the average of the entire community. The same principle might obtain with regard to the supply of water: it certainly will apply ere long with regard to the purification of sewage. A national minimum of this character can very readily be attained. We have a national minimum of primary education: we have a national minimum of justice in the shape of police and local judicial administration. Why should we not have a national minimum of health, of housing, of open spaces, and such like social necessities? Apart from the whip thus exercisable by an efficient and active central authority or the inspiration of local enthusiasm, self-governing communities have a tendency to fall into the background, especially in the carrying out of reforms involving public expenditure.

My task is well-nigh ended. I have endeavoured to show that there is really nothing novel in the principles which govern modern communities. It is true, however, that they are being applied in a larger degree than formerly. This is the only novelty which is visible. I have also ventured to suggest that if the greatest municipalising tendency of recent years be sought, it will be found to be moral and educational rather than commercial. The expansion of municipal enterprise to which I have called attention makes a greater personal demand upon public representatives than has ever been voiced at any prior period in the history of local self-government, while it also creates political, social, financial, and administrative problems of considerable magnitude. These are the chief points in the paper which I have had the privilege of laying before you. To some of the problems I have ventured to indicate solutions: others I have been content to leave in the shadowy realm of the suggestive.

MANCHESTER STATISTICAL SOCIETY.

The Work of the British Cotton-growing Association.

By J. Arthur Hutton.

(Read February 10th, 1904.)

Before entering upon the details of the subject on which I have the honour of addressing you this evening, I must express my deep regret that I am unable to fully repay the compliment you have paid me by laying before you any full and detailed statistics relating to the production and consumption of cotton. Had I known a few months ago what I know to-day, and had I realised then what I was undertaking, I must confess I should not have yielded so readily to the very energetic persuasions of your Honorary Secretary. I should have found my task comparatively light had there been an up-to-date edition of Mr. Thomas Ellison's most excellent book on the cotton trade, published in 1886. There is a great opportunity for one of the members of this important Society to bring out a publication to supplement Mr. Ellison's work. During the last two months I have studied all the Blue Books and statistics I could get hold of, and all I have been able to evolve is a confusing and contradictory mass of figures. To give you some little idea of

the difficulties I have had to contend with, some of the statisticians calculate 500lbs. to the bale, some 400lbs. to the bale, some 450lbs., and others do not tell you on what basis they are reckoning. Nor do the statistics of any two authorities agree. Following one set of figures I find there is at the moment a deficiency of nearly 2,000,000 bales, whereas another set of figures clearly proves that we are not short of cotton and never have been. I may add, as a further example, that I have come across no less than three different estimates of the number of spindles in this country at the present moment, varying from 47,000,000 to 50,000,000.

My original intention was to lay before you full and detailed statistics of production and consumption, and I can assure you that my inability to do so is not due to any failure on my part to appreciate fully the compliment you have paid me in asking me to address you, and I must therefore beg you to overlook the shortcomings of my paper. I know that statistics and the discussion of them are the life and breath of this Society, and it is to me a matter of the very greatest regret that I cannot meet your wishes on this point.

It is almost a truism to state that the question of the future supply of cotton is by far the most important problem before the world at the present moment. This is not merely a local matter affecting the interests of the merchants and manufacturers of this country, or of the millions of people who are directly and indirectly dependent on the cotton trade—it is a far bigger question than that; for there is hardly a single country which is not affected by a failure of the cotton crop or by an insufficient supply of raw material for the most important manufacturing industry of the world. Cotton has rightly been called "King Cotton," for it is no exaggeration to say that at least one quarter of the population of the world is under his sway. England is not the only country which is suffering from short supplies; Germany, France, and even the United States are feeling to-day the evil effects of this short supply and the great aggravation of the evil by the unscrupulous manipulations of greedy speculators. I am not one of those who think that

legislation can remedy these evils—I am convinced that the only real and lasting remedy is a full and sufficient supply of cotton. So long as there is any doubt as to the annual crop of the world being equal to the annual demand on it, so long will speculators—whether in the United States, in England, or elsewhere—trouble and harass the unfortunate user. Many remedies have been proposed and discussed lately, but to my mind there is one—and only one—effective remedy, viz., a full supply of the article itself. All the speculator cares about are the fluctuations on paper—a steady price is to him an abomination, and there is nothing he dislikes so much as the actual commodity in which he gambles. He wants no cotton, he would not know what to do with it if he had to keep it, and *provided there is a sufficient supply*, his manipulations can be defeated by tendering delivery of the real article—to use an expression which is becoming classical, "smother him in cotton." It is, I am afraid, useless to argue the moral side of the question, but I must confess that I do not envy the wife and children of the speculator, nor the speculator himself, who is willing to cause untold misery and hardship on the toilers of the world in order that he may gather together a few more hundreds of thousands of dollars.

The present crop of the world, as far as I can ascertain, is somewhere about 16,000,000 bales of 500lbs. each, divided, in round figures, as follows:—

United States	11,000,000 bales.
India	3,000,000 bales.
Egypt	1,000,000 bales.
Rest of the world.....	1,000,000 bales.

It will be noticed at once that far the largest proportion, viz., 70 per cent, is obtained from North America, with the natural consequence that the price of the whole of the cotton of the world is ruled by the crop of the United States. Apart from all other considerations this is not a safe position, and one can easily see that if the basis of supply were very much wider, and if we obtained more of our cotton from other sources, we should have a much steadier annual supply and would be

less dependent on the vagaries of the weather and the manipulations of speculators in one particular part of the world.

On examining the figures of previous years two facts stand out very prominently. One is that the supplies from India have not increased anything like so rapidly as those from other centres of cultivation; *e.g.*, in 1890 India's total crop amounted, in round figures, to 2,700,000 bales of 500lbs., a figure which was not reached again until 1899, and in the season ending 1903 the crop amounted to 3,000,000 bales, an increase in thirteen years of only 300,000 bales. On the other hand, the American crop has increased in the last ten years from about 8,000,000 bales to close on 11,000,000 bales, the Egyptian from 800,000 to 1,000,000, and the rest of the world from 250,000 to 1,000,000 bales. Had India's crop increased at all proportionately to the growth of other parts of the world, we should to-day have a production there of nearly 3,500,000 bales of 500lbs., and we should not be in quite so bad a position as we now are. There are some members of the Association who firmly believe that a more immediate solution of our present difficulties is to be found in India, and that if proper steps were taken a largely increased supply of cotton could very soon be obtained from that country, or what comes to nearly the same thing, a great improvement in quality. No doubt cotton of the short and inferior staple usually produced in India is not of much use to the majority of Lancashire spinners, but one must not forget that any cotton grown is of use, provided it is of usable quality. Even if it be of the shortest staple, it will relieve the demand on the next best grade, and the extra supply of the better quality so released will relieve the demand on the next grade higher, and so on; and *vice versâ*, if there is an increased supply of the best Sea Island, the spinners who can utilise the same will not be forced on to the market for the next lower grade.

The second fact which strikes one is the want of elasticity in recent years in the production of cotton in the United States. Taking periods of three years, so as to partially neutralise the variations from year to year which one must naturally expect,

we find the annual increase in the quantity of cotton grown to be as follows:—

Three years ending 1894.....	40,000 bales.
Three years ending 1897.....	280,000 bales.
Three years ending 1900.....	680,000 bales.

But when we come to examine the figures of the last three years we find that the crop of the United States has averaged little over 10,500,000 bales, or about the same quantity as in the previous triennial period, and shows no increase whatever. The result of this is that the world's crop of cotton, which in 1898 amounted to about 15,500,000 bales, has increased in the last five years to about 16,000,000 bales of 500lbs., or by about 100,000 bales only per annum. I should like it to be clearly understood that I put these and all other figures before you merely as approximate ones, for as I have already explained I have not found it possible to obtain any really reliable data of the production and consumption of cotton.

I would now ask you to turn your attention from the question of supply to that of demand. As far as I can ascertain, in 1895 the number of spindles in the world, apart from Japan, China, Canada, Mexico, and Brazil, was as follows:—

Great Britain	45,400,000
Continent	28,200,000
U.S.A.	16,100,000
India	3,800,000
Total	93,500,000

Four years later, in 1899, the numbers were approximately as follows:—

Great Britain	45,500,000
Continent	32,500,000
U.S.A.	18,300,000
India	4,700,000
Total	101,000,000

These figures show a large increase on the Continent and in the United States, whereas there was practically no increase in this country. The total increase is 7,500,000 spindles, or 2 per cent, which I think is what one would expect to find, as I understand that is about the normal increase in the population of the world. All the same, I should not like to lay too much stress on the importance of these figures; for, after all, the number of looms is really the better guide to the increase of production, but the statistics as to this latter point I have been unable to obtain.

To turn now to the last available figures, viz., those for 1903, and which I think you can take as approximately correct, we find the following:

Great Britain	48,000,000
Continent	34,000,000
U.S.A.	22,000,000
India	5,000,000
Total	109,000,000

I am also able to give you the figures of the spindles for other parts of the world, as follows:—

Japan	1,500,000
China	600,000
Canada	700,000
Mexico	500,000
Brazil	300,000

giving a total for the whole world of 112,600,000 spindles.

As compared with the previous period we notice that the total increase for the first-mentioned countries is 8,000,000 spindles, or again about 2 per cent; but we find that in Great Britain there is an increase of 2,500,000 spindles, as compared with an increase of 1,500,000 on the whole of the Continent. This does not look as if our trade was in quite such a stagnant state as some people would have us believe, and the fact remains

that out of the total of 112,600,000 spindles we possess 48,000,000, or about 44 per cent. On the other hand, in the same period the United States show an increase of 3,700,000 spindles, an increase which is almost entirely due to the marvellous growth of mills in the Southern States. It would take too long to enter now into this extraordinary extension of manufacturing, but I think we can safely conclude that what we cotton manufacturers have to fear in the future is not the competition of the protected countries of Europe, but the immense natural resources of America, and the rapidly increasing population of that wonderful country.

The question which naturally arises is, what amount of cotton do all these millions of spindles consume? and I wish that I could lay before you some really reliable data on that point. As far as I can ascertain, in the five years ending 1895 the world's average consumption was approximately as follows, in bales of 500lbs:—

Great Britain	3,161,000	bales
Continent	3,874,000	bales
U.S.A.	2,541,000	bales
India	994,000	bales
All other countries	270,000	bales
Total	10,840,000	bales

To this has to be added a very large quantity for the amount consumed in hand spinning in India, China, and elsewhere.

In the following quinquennial period the figures are as follows:—

Great Britain	3,356,000	bales
Continent	4,586,000	bales
U.S.A.	3,367,000	bales
India	1,171,000	bales
All other countries	752,000	bales
Total	13,232,000	bales

showing an increase of 2,392,000 bales.

It is very difficult to draw any definite conclusions from these figures, showing, as they do, that consumption is much less than production, but I think we can take it as certain that the normal annual increase in the consumption of cotton is about 400,000 to 500,000 bales per annum. If this increase continues, in ten years from now we shall require an addition of at least 4,000,000 bales to our present supplies, assuming that the latter were adequate for our needs, which we all know is not the case.

We discover from these figures one very astonishing fact, and that is, how much more cotton our neighbours require to keep their spindles running than we do. The American spindle devours about 90lbs. per annum, whereas on the Continent only 70lbs. is used up in the year. In Great Britain 34lbs. per spindle is ample. The real explanation is that in this country we put far more labour into the cotton and spin far finer counts and are making finer and better goods than are produced in other parts of the world. If we examine our own statistics, which I think are reliable, we find that twenty years ago we required annually about 36lbs. per spindle, and although the number of spindles has increased since then by 25 per cent, and although, as every spinner will tell you, our spindles are running faster than ever they did, yet our total consumption of cotton is little, if any, more than what it was in the earlier period. Further than that, in this country the tendency every day is to spin finer and finer counts. It is very probable that many of those who have been preaching stagnation and decay in the cotton trade have been misled by this fact. An absence of increase in consumption of cotton is not necessarily a sign of stagnation, and this is proved by the fact that in the last four years we have added 2,500,000 to the number of our spindles. The cotton trade of this country is the most highly organised in the world, and I for one have every confidence in the ability of our cotton manufacturers to compete with all comers in the open markets of the world, provided only that they have an ample supply of raw material at a reasonable price.

As I have already admitted, the figures I have put before

you are only approximate, and it would be unwise to lay too much stress on them; but I think there are one or two facts we may safely deduce. The world's consumption seems to be increasing in recent years at the rate of 400,000 to 500,000 bales per annum, though it must not be forgotten that these increases have taken place when cotton was nearer 4d. than 5d. a pound. If during the next few years we are going to have an average price of, say, 5d. to 6d. a pound, we are bound to experience a very great check in consumption—there may possibly be an actual reduction. Let us not forget that most of our customers are exceedingly poor, and that if the purchasing power of the consumer remains unchanged, he can only buy four, or even three, shirts where he used to buy five. I think we can also assume that the production of raw cotton throughout the world, at anyrate during recent years, has not been increasing so fast as the consumption, and this is due almost entirely to the want of elasticity in the production of the United States, which I am informed is principally due to a want of sufficient labour. And, again, we cannot afford to disregard the fact that the inhabitants of the United States are using more and more of their own cotton every day, and that if this increase continues, in ten years from now there will be but a comparatively small surplus left over for the rest of the world.

The one solid fact which stares us in the face is that the present supply of cotton is insufficient to keep the spindles of the world fully employed, and the cotton trade has developed into a scramble for the available supplies. Such a position is the opportunity of the speculator, and so long as there is no material increase in the growth of cotton so long will the user be at the mercy of the gambler. It is perhaps hardly necessary now to draw the attention of mill owners, or of the operatives, to the danger of the position; they recognised this fully last year if they had not done so before, but I think it is only within the last few months that the merchants and distributors have begun to realise that they too are going to suffer. Nor do I suppose that even to-day it is fully realised by those who are

engaged in the many subsidiary industries connected with the cotton trade that they as well are dependent on King Cotton, still less by others who will only feel the full effects of the disaster when bad times and short wages in Lancashire have reacted on every industry throughout the kingdom, not excluding the farmers, who grow so much of our food.

And what is the outlook for the future? That the present supply is insufficient we all must now admit, and where are we to look for an increase of supply? I am afraid not to the United States. The population of that great country is to-day about 80,000,000, and is increasing rapidly, and their own requirements of cotton goods, and consequently of cotton, are increasing in proportion. Although in North America there is land enough to produce far more cotton than is grown to-day, there is not sufficient labour to effectively cultivate the 28,000,000 acres now supposed to be under cotton. Five years ago 23,000,000 acres provided 11,250,000 bales of cotton; to-day it is doubtful whether we shall have 10,500,000 bales from a largely increased acreage. I have been informed that many of the labourers have drifted to the towns, and however good the weather may be, on many farms cotton has to remain on the trees until it is spoilt by the weather, for want of labour to gather it. The consumption of cotton in the United States ten years ago was about 2,500,000 bales. In the following five years it increased to 3,000,000 bales, but in the last five years it has increased to 4,000,000 bales. The consumption in the North has been practically stationary, and the whole of the increase has been in the Southern States. I do not think this increase will continue quite so rapidly in the next few years, partly because much of the surplus cheap labour has been absorbed, and partly because the present high price of cotton cannot fail to seriously check consumption; but I think that we can make up our minds that the United States will use more and more of their own cotton every year, with the natural consequence that if other supplies are not forthcoming Europe and the rest of the world will have to go short. The problem to-day before the world is where those supplies are to come from, and the solution

of this problem is the *raison d'etre* of the British Cotton Growing Association; and it can be said, without fear of contradiction, that the movement now started is one of the most important in the world's history. Similar associations are at work in Germany, France, and Italy, and Russia is also endeavouring to supplement her supplies by cotton cultivation in her Asiatic possessions. The British movement, however, is much the most important, for the field to be covered is so much larger. Let us fully realise that on the success or failure of this movement the future of our great cotton trade depends.

Before I enter with more detail into the work the Association has already achieved, and what are the plans for the future, it will perhaps not be out of place for me to give you briefly the origin of the movement. At the annual dinner of the Oldham Chamber of Commerce, held in January, 1901, a most important discussion took place on the necessity of securing increased supplies of cotton for Lancashire spinners, and at a subsequent meeting a special committee was appointed, who at once proceeded to make inquiries into the possibilities of cotton growing in nearly every part of the British Empire. I think all who are under the sway of King Cotton owe the very greatest debt of gratitude to the Oldham Chamber of Commerce for being far-sighted enough to see three years ago what some of us are only beginning to see to-day; and still more grateful should we be to the chairman of that committee, Mr. J. E. Newton, to whom more than anyone else the origin of the British Cotton Growing Association is due. It is all the more regrettable that Mr. Newton should have devoted himself so arduously to the work of the Association that his health suffered in consequence, and that he has not been able for a long time to take any active part in its labours. I should also like to say one word of appreciation for the active labours of Mr. Atkins, the present secretary of the Association, and who has given his whole heart to the work since the earliest stages. The report of this committee was presented to the Oldham Chamber on November 18th, 1901, and may be summed up in

one sentence: That suitable cotton for the Lancashire trade could be grown in various parts of the British Empire.

The Oldham Chamber then approached the other local Chambers with a view to supporting a movement for extending the growth of cotton in our colonies, and a meeting was held at the Manchester Chamber on February 18th, 1902, when a large and influential committee was appointed.

In the meantime Sir Alfred Jones (of Messrs. Elder, Dempster and Co., of Liverpool) had been working to the same ends but on different lines. In May, 1901 he sent out ten tons of American seed to our West African Colonies, and he was impressing on the Governors of those colonies the necessity of trying to extend the growth of cotton. All those who have come across Sir Alfred Jones cannot fail to appreciate the unselfish manner in which he has given up time and money for the good of the cause, coupled with an unfailing flow of most generous hospitality.

The African Committee of the Manchester Chamber were asked to appoint representatives on the Oldham Committee, and it soon became apparent to them that it would be far better if these two parallel movements—headed on the one side by Mr. Newton and on the other by Sir Alfred Jones—should do, what scientific men say parallel lines never can do, meet together, and be fused into one. That meeting took place, on their invitation, at the Albion Hotel, on May 7th—a gathering which was described by one of the newspapers as "epoch-making." At anyrate, before the meeting came to an end, the impossibility had been turned into an actual fact, and the British Cotton Growing Association was born; and at a meeting held at the Manchester Chamber on June 12th the Association was formally inaugurated and an Executive Committee appointed, and it was decided to raise a guarantee fund of £50,000.

I will not weary you with any details of the earlier work of the Association. We met with great encouragement from some of the Government officials, though others did not give us the help we were entitled to expect. We were loyally supported in

finances by some of the representatives of the cotton trade; on the other hand, the response of the bulk of the trade was most disappointing, and in consequence thereof the work of the Association was much crippled, and although funds are now coming in rapidly our progress has been thrown back at least twelve months by the want of a generous response to the numerous appeals for financial aid which were issued in the earlier days.

Not only were we troubled for want of funds, which put a stop to any extensive plan of operations, but we were also almost overwhelmed in a mass of correspondence with every part of the British Empire where cotton could be grown. The work has been subdivided and apportioned to different committees, but although this took place only recently the demands on the time of the committee are growing so rapidly that some further alteration may shortly be required.

In dealing with the work which has already been accomplished, I would commence with that part of the world where we have done least, and where some say most can be done, viz., British India. Interviews have been held with several of the leading officials connected with the Agricultural Department, and a good deal of correspondence has taken place and much valuable information has been obtained. As far as can be judged from past experience, all previous attempts to introduce American or other exotic varieties of cotton have ended in failure, and it is very doubtful whether it is worth while spending any more money in that direction. It is, however, generally admitted that the quality of Indian cotton has distinctly deteriorated in the last ten years, and this seems to be due to the fact that all varieties are mixed together in ginning and that no attempt is made to select the best seed for planting purposes—the one and great essential of successful cotton cultivation.

The methods of cultivation, too, are most primitive, and all modern improvements are conspicuous by their absence. Judging from the obstinacy and reluctance of most English

farmers to adopt improved methods or implements, or to learn any lesson from their scientific competitors in Denmark and elsewhere, it is very doubtful whether it will be possible to instil any new ideas into the head of the Indian ryot. Nothing can be done without trying, and it is quite possible that the establishment of model farms in the midst of the cotton fields might afford valuable object lessons. If such farms were established, not only would they be the best educational method which could be adopted, but they might also be the means of providing the natives with improved and selected native seed. It was, of course, at once recognised that any attempts at the education of the ryot were absolutely beyond the power and the finances of the Association, and representations were made to the Government urging them to take up the work, and the Secretary of State was asked to receive a deputation. I am sorry to say that it is only within the last few days that the Secretary of State has consented to receive that deputation. No doubt there is some good reason for this delay, but in the meantime Lancashire is rapidly approaching harder times than have ever been known since the days of the Cotton Famine.

It is perhaps not generally known that at one time we derived our principal supplies from the West Indies, and it is almost an irony of fate that we should be again turning our attention in that direction, and that there is a possibility of the unfortunate sugar planters of those islands finding their salvation, not in sacrifices on our part to revive their decaying sugar industry, but in the growth of cotton. At the commencement of the last century we obtained 40,000 bales, or about half of our total supplies, from our West Indian possessions, and it was not until the year 1802 that our imports from the United States for the first time exceeded those from the West Indies. In 1902 our total imports of cotton from our old sources of supply were less than 1,000 bales. A special grant of £400 was made to the West Indian Government for the encouragement of cotton cultivation, and this was followed up by supplying seed, gins, and presses. An advance was also made to a lady planter of Montserrat, the island of lime-juice fame. She grew some

excellent cotton from Sea Island seed, which realised about 11½d. per pound, and it is understood that she netted a profit of about £8 an acre. A further advance was made this season, and it is believed that the result is all that could be desired. The question has been taken up most vigorously by the local authorities, and Sir Daniel Morris, the Director of Agriculture, is taking the deepest interest in the question. He has visited most of the islands and also British Guiana, delivering addresses and advising the farmers to go in largely for cotton. In addition to that, he has paid a special visit to the United States in order to study American methods of cultivation. A large amount of correspondence has taken place, and there is no doubt that we can rely on the West Indies for a considerable addition to our supply of Sea Island cotton in the immediate future.

Unfortunately, owing to their impoverished condition, few of the landowners have sufficient capital to undertake cotton growing without some financial assistance, and our very great thanks are due to the authorities at the Colonial Office for the ready and business-like way in which they have met the difficulty. It has now been arranged that, under the joint guarantee of the local authorities and the Association, grants shall be made to all respectable planters who wish to undertake the growth of cotton—so much when the land is planted, so much when the crop is partly grown,, and a further amount on shipment. The cotton will be consigned to the Association and the surplus proceeds handed over to the planter. Thanks to the generous arrangements made by the Government there will be no locking up of the Association's funds, and the risk which will be run will be very small, except in the case of devastation by a hurricane, which is unfortunately too frequent an occurrence in that part of the world. This is, however, a risk well worth running for the sake of the great end we have in view, and it is to be hoped that in a few years' time we shall again have a large supply of cotton from our West Indian possessions, and that the planters there will have earned such a profit as will enable them to pay off every existing mortgage and charge on their lands.

Before turning to Africa, where our greatest hopes are centred, I should mention that correspondence is being carried on with Australasia, Ceylon, Burmah, Borneo, Fiji, and, in fact, with every British possession where cotton can be grown; but it is unnecessary to take up your time by going into details on this part of the subject.

Egypt, with the Egyptian Soudan, was naturally a field to which the early attention of the Association was directed. Although, according to our constitution the principal object of the Association was the encouragement of cotton cultivation in British possessions, it was felt by the committee that the protectorate we exercise over Egypt was sufficient to justify them in considering this part of the world within the scope of their mandate. It was soon discovered that in Egypt proper no action on the part of the Association was necessary, as the Egyptian Government and the Egyptian people were fully alive to the advisability of increasing the cultivation of cotton as much as possible. It was, however, disappointing to learn that the new Nile dam would not result in an increase of acreage of much over 15 per cent. On the Upper Nile the quantity of suitable land available is enormous, and a certain amount of cultivation has already commenced, and cotton has been grown equal to the very best Egyptian. Unfortunately there are two great difficulties in the way, a want of labour and a want of transport. The first difficulty time alone can overcome, unless immigration from India or elsewhere takes place; but the long-talked-of Suakin-Berber railway would effectually solve the transport question. The Association has been in constant communication with Lord Cromer on this subject, and the seriousness of the situation has been pointed out to him and the absolute necessity of pushing on with this railway with all possible speed. It would probably expedite matters a little if our local members were also to bring pressure to bear on the Home Government in Parliament to urge the rapid construction of this railway.

Quite recently a new field has been discovered in the neighbourhood of Tokar, on the Red Sea, and we are informed that in

this district there are very large possibilities—it is said that the land available is capable of growing a crop as large as the present growth of the whole of Egypt. If this be true we can regard with rather more equanimity the largely increased demands of recent years for Egyptian cotton, which I understand are due principally to the fact that cloth made from Egyptian cotton is much more suitable for the mercerising process than that made from American or other growths. Although the bulk of our spinners to-day are interested only in the question of the supply of American cotton, I am inclined to think that the question of the supplies of longer stapled cotton will become of growing importance every year, in view of the undoubted tendency of our manufactures to become of finer and better quality; and therefore, though the urgent necessity to-day is the provision from new sources of a supply of cotton to take the place of American, we cannot afford to disregard any field capable of producing cotton of a longer and better staple.

From Egypt one naturally proceeds to Uganda and British East Africa, and an expert has been sent there by the Foreign Office. It is too soon yet to speak with any certainty of what are the possibilities, but Sir Charles Eliot, the High Commissioner, informs us that there is plenty of excellent cotton land and a good supply of cheap labour, and we hope that we can look to this part of Africa for an addition to our supplies of long stapled cotton. It is a remarkable fact that up to now all attempts at naturalising Egyptian cotton in America, India, and other places have not succeeded; the cotton produced soon losing the silkiness which is the main characteristic of the original variety. In British East Africa this is not the case, and a sample of cotton grown in the adjacent German Protectorate was reported on in Liverpool as "the best Egyptian substitute" ever produced.

Proceeding further south we come to British Central Africa, perhaps better known as Nyassaland, and here innumerable experiments are being carried on by several of the industrial missions and trading companies and planters. The Association has sent out a number of gins and agricultural implements, and

has also supplied a large quantity of seed. Some excellent samples of cotton have been grown from Egyptian seed, and it is now certain that we have here one of the most promising fields for future supplies. A considerable acreage has been put under cotton, and in addition separate advances of £1,000 each are being given this year to two planters, under Government supervision, and gins and other machinery are being supplied. At least 2,000 acres will be put under cotton, and the crop, when marketed, will be sent to the Association for sale, and after repayment of the advances and expenses the balance will be handed over to the planters. If these two experiments are successful it would certainly be advisable to very largely extend this system of advances. There is plenty of suitable land and a good supply of cheap labour—unless serious drafts are made on the latter for the South African gold mines—and we are informed that it might be possible to get one or two hundred thousand acres under cultivation in 1905. Of course the financing of such a large scheme as this is altogether beyond the existing funds of the Association, but there should be no difficulty in finding the necessary money by some means or other. It is certainly in the interests of Lancashire to give these advances and so ensure that as much cotton as possible should be consigned to the Association. This will at least result in the cotton coming to this country without the intervention of any middleman or speculator, to the benefit of both the grower and the user, though its ultimate destination will depend on who is willing to pay the highest price for it after it has been landed in England. There is, however, one rather serious difficulty in Nyassaland—the question of transport. At the present moment everything has to be conveyed to the Zambesi by hand labour, and after that water transport is available. There is an efficient transport company, and the charges are sufficiently reasonable to make it possible for the planter to produce cotton economically, and to enable him to put the same on the Liverpool market at about 4½d. to 5d. a pound. Should, however, the growth of cotton very largely develop—of which there is every probability—I am afraid that much labour which should be

employed in cultivation will be fully occupied in conveying the cotton down to the Zambesi. There is therefore all the more necessity that the projected railway, which has been commenced, should be pushed on with all possible speed, and pressure in the House of Commons could again be very usefully exercised by our local members of Parliament.

The next British possession we reach is Rhodesia, where extensive experiments are being carried on by the British South Africa Company. As far as we know excellent cotton can be grown there, but I am afraid the available supply of labour is not sufficient for any very large additions to our supplies, and this is still more true of the adjacent Transvaal colony, where cotton can certainly be grown, but where the supply of labour is fully absorbed by the gold mines.

I now come to the last portion of my subject, but by no means the least, and that is British West Africa. The area of country is very large—our West African possessions are about one-third the size of the whole of India—but of course cotton cannot be grown everywhere, nor is it desirable that the whole country should be largely dependent on one single product. The total area is, in round figures, 500,000 square miles, and if it were possible to get only one-tenth of this area under cotton, we should obtain 30,000,000 acres, which, at the rate of one-third of a bale to the acre, would give 10,000,000 bales of cotton. Here is undoubtedly an immense possibility. Then, again, we have a large supply of cheap labour—a conservative estimate of the total population of West Africa is 20,000,000 of inhabitants—in Northern Nigeria alone there are supposed to be at least 10,000,000 natives. It should not be forgotten that the coloured population of the United States, by whom the bulk of the cotton is grown, is not much over 10,000,000. And last, but not least, the land can be obtained for almost a nominal rent. It is therefore easy to understand that the Association are making very active efforts to encourage the growth of cotton in this part of the world, where cotton is already cultivated to-day and has been cultivated for centuries. Most of the West African cotton which has been exported in previous years is of

rough quality, though of moderately long staple, rather like the Peruvian variety, and for which there would never be a large market, as it is principally used for mixing with wool. But there are some excellent native varieties, and from Sierra Leone a sample was received which was a good deal better than average American—white and silky and of fine and fairly long staple. We have still much to learn of native varieties, and although some excellent results have been obtained from imported American seed, it is very possible that we may ultimately obtain the most suitable cotton for Lancashire either from native seed or from a cross between native and American. The prospects are most hopeful, and I for one am firmly convinced that Lancashire's future salvation lies mainly in West Africa.

If I am not wearying you too much, I propose to give a short account of what has already been done and afterwards what we think should be done.

The first colony we come to is Gambia. Owing, however, to gross apathy on the part of our Government in years gone by, this colony is a comparatively narrow strip of land along the river, hemmed in on all sides by the French. It was nevertheless felt that no opportunity, however small, should be neglected, and an expert was sent there early last year. Unfortunately, owing to circumstances over which the Association had no control, Mr. Severs, the expert, came home after a comparatively short residence, and the work has had to be recommenced practically *de novo*. Mr. Echolls, a young American expert, has recently gone out, and will at once commence an experimental farm, which will serve as the best possible object lesson for the education of the natives. Mr. Severs reported that there was plenty of good land suitable for cotton, but that there would probably be a difficulty in persuading the natives to take up anything new. Some very fair samples of cotton have been grown, and it would undoubtedly be of great advantage to the colony if cotton growing could be established there as an additional native industry, for at the present time Gambia is practically solely dependent on one product—the ground-nut

crop. One undoubted advantage Gambia possesses, and that is an excellent waterway—the Gambia river—which is navigable for small steamers throughout the greater part of the colony, so that there is no necessity for any expenditure on a railway or other means of transport.

Proceeding further south the next British possession we reach is the colony of Sierra Leone. Here we find a larger extent of territory, a larger population; and probably, with the exception of Lagos and southern Nigeria, there is in this colony a better prospect in the immediate future than in any other of our West African possessions. The Association were fortunate in securing for Sierra Leone the services of Mr. Shelby Neely, a very able young American from the Mississippi valley. Although nothing very great has been achieved up to now, slow but substantial progress has been made. Small experimental plots were planted last season with American seed, but the cotton has not yet reached this country. The very best sample of cotton from West Africa was sent home by Mr. Neely, and was obtained from plants grown from native seed which he found during his investigations. As far as our present knowledge extends there seem to be two districts suitable for cotton, the Sherbro district, in which there are fair waterways, and further north along the existing railway, so that the transport difficulty will not be of consequence just yet. Unfortunately Mr. Neely was invalided home last November, or one might almost say fortunately, for it enabled the Association to discuss very fully with him the question of cultivation. Acting on the information obtained from him, the committee have been able to take into consideration a much more vigorous and larger scale of operations, and it has been decided to station an expert in the Sherbro' district and another on the railway, and in addition three black expert farmers have been sent out from the United States. It is therefore to be hoped that in the coming season a fair amount of land may be brought under cultivation, with a view to a much larger extension later on.

After leaving Sierra Leone we proceed eastwards to the Gold Coast Colony, which has large tracts of excellent land and

a large population, but where, unfortunately from the Lancashire point of view, many gold mining companies have established themselves, and in consequence thereof not only has the price of labour considerably advanced, but practically the whole of the surplus labour of the western portion of the colony is fully absorbed. There are, however, favourable possibilities in the eastern portion, and with the idea of neglecting no opportunity Mr. Fisher, one of our experts, was sent out in June last year. His report on the capabilities of the land is most encouraging, and he also tells us that the natives are most intelligent and very ready to learn. As an instance of the agricultural possibilities of this colony I may mention that the export of cocoa, which ten years ago was almost an unknown article, and which five years ago amounted to 156,000lbs. in weight, had increased in 1902 to over 5,000,000lbs. in weight and £95,000 in value, and is now the most important product of the colony after palm oil. This is solely and entirely due to native cultivation with Government assistance. We can only hope that we may be able to obtain as satisfactory results with cotton. The trade of the eastern portion of the colony is served partly by roads and partly by the Volta river, and if a railway were constructed from Accra to Kpong it would undoubtedly bring much cotton land within economical reach, but at the present moment the Association would hardly be justified in urging the Government to go to the expense of constructing this railway, although some excellent cotton has been grown from seed supplied by the Association, and there is every probability of successful cultivation on a moderate scale, and which would be much larger if there were a better supply of labour.

Adjoining the Gold Coast is the German colony of Togoland, which although not altogether within the scope of my subject, is most interesting as the place where the first modern attempt has been made to establish cotton cultivation on a scientific basis in West Africa. The German Agricultural Committee commenced operations in 1901, and, like everything done by that intelligent nation, started their work on a sound and scientific basis. An immense amount of educational work has

been done, and all sorts of experiments have been carried out, such as hybridising, sterilising the seed, experiments with fertilisers, inoculation against the Tsetse fly, and so on. They have been most generous in giving us the benefit of their experience, not only in West Africa but in East Africa and elsewhere, and I am glad to say that the most cordial relations exist between this important body and the British Cotton Growing Association, and it is fully recognised on both sides that in the present troubled waters England and Germany are in the same boat and must help one another.

Passing by the French colony of Dahomey, we come to Lagos, in some ways the most promising field of all. Inhabited by a large and intelligent population, already given to agricultural pursuits, and already well acquainted with cotton cultivation—in, however, the most primitive methods—with large undulating, park-like tracts of land in the Hinterland, with a railway already reaching towards the interior, Lagos offers greater possibilities of large and immediate results than any other of our West African possessions. Unfortunately there has recently arisen a good deal of dissension and ill feeling between the natives and the European population owing to the revival, in a very objectionable form, of the old custom of levying tolls or octroi in the large native towns of Abeokuta and Ibadan, with the unfortunate consequence that the cause of cotton growing has suffered very severely, and the results from last season's planting are neither so large nor so good as the Association confidently expected. Much of the seed which was sent out was never sown and is to-day lying rotting in the interior, and the machinery which was sent out early last year was not got into working order until October last. This machinery would probably not be working to-day had not the Association sent out Mr. Evans with a mechanic to superintend the buying and ginning. Two experts were sent out last May, Messrs. Hoffmann and Barnes, natives of the West Indies, and we understand that they have succeeded in carrying out a great deal of educational work. A moderate amount of cotton has already been received, and of pretty fair quality, but certainly nothing like the amount which was

expected. This may be due to the aforementioned trouble caused by the Hinterland tolls, but no doubt the crop was seriously affected by the deficient rainfall in 1903, as there is also a large falling off in the supplies of all kinds of native produce. These, however, are transitory troubles, and there is every reason to confidently expect a large supply of cotton from Lagos within the next two or three years, for it must not be forgotten that in former times Lagos exported considerable quantities of cotton—as much as £76,000 worth in one year. As the best of the cotton land is in the Hinterland, it is absolutely necessary that immediate steps should be taken to extend the railway beyond Ibadan—the present terminus—towards Ilorin, and so open up the Yoruba country, which for all practical purposes is quite inaccessible. Nor should there be a moment's delay in coming to a decision on this point, for the railway will take some years to construct, and unless it is put in hand at once the whole of the present limited amount of available land will be fully developed before any further country is opened up. If in the opinion of the authorities the colony itself is unable to find the money for the extension of the railway, I do not think we should hesitate one moment in bringing the very strongest pressure to bear on the Government to vote imperial funds or give an imperial guarantee for the purpose. Nor should our efforts be confined to urging the extension of the railway, for much can be done by the construction of roads, which would render it possible to bring cotton down to the railway in light carts.

Adjacent to Lagos is Southern Nigeria, a large tract of country, with, we believe, a considerable amount of land suitable for cotton growing. The population is large, but of a lower and less intelligent type than is to be found on other parts of the coast. Mr. Prince, an expert, was sent out there, and in addition to some small experimental plots, he cleared and cultivated a plantation of about 50 acres some way up the Niger River, close to Onitsha. This was sown with imported American seed, and the cotton has been gathered and is now ginned. A large representative sample has been sent home, and is just the cotton

we want in Lancashire; and if 1,000,000 bales of this cotton were available to-day we could smother Mr. Sully and all his friends in it with the greatest of ease, and every mill in Lancashire would to-day be running full time and every operative receiving decent wages and be independent of soup kitchens and other charitable assistance which must be almost an insult to the sturdiness of character and natural pride of the Lancashire lad.

At the moment we do not feel at all sure which is the best place to carry out experiments on a large scale. The cost of clearing forest land in the neighbourhood of the existing plantations is very great, and there is the further disadvantage that the clearing takes time, and delay is just what Lancashire can least afford at the present moment. No doubt there are large tracts of land suitable for cotton where little or no clearing would be required, but the necessary arrangements will take time, though arrangements are now being made for the thorough investigation of the Sobo plains. One undoubted advantage Southern Nigeria possesses, and that is that the country is largely intersected by a number of natural waterways, which afford a cheap and ready means of transport, and consequently no expensive railways are necessary, though probably later on it will be incumbent on the Government to provide a regular steamer service.

Northern Nigeria, with its large area of over 300,000 square miles and a population of over 10,000,000, certainly offers at some future date an enormous field for the cultivation of cotton; more promising, indeed, than any other of our West African possessions. The Haussas are most intelligent, and far more civilised than the majority of the inhabitants of West Africa; they are naturally a peaceful race, devoting their energies to agricultural and commercial occupations. Most of the trouble which has been experienced up to now has been with the Fulani—the ruling class—an altogether different type. There is no doubt that cotton can be grown there; in fact, it has been more or less systematically cultivated for centuries. It would be most unfortunate if this vast tract of territory, one-fifth the size of India, were to be allowed to lie undeveloped for want of proper

means of transport. Here we have a country capable of producing all the cotton we want and many other things besides, with enormous latent possibilities, which has cost this country several millions of money, and which is to-day costing the British taxpayer close on £400,000 per annum. And all this is lying idle for want of the £500,000 or £1,000,000 required for the construction of a railway to connect the interior with the navigable waters of the Niger. Until this railway is constructed it is impossible for there to be any large development of trade, which to-day does not reach £100,000 per annum. No business man would hesitate for one moment in spending the necessary capital to turn a losing estate into a paying one. I cannot understand how the Government can allow one moment's delay, and the sooner the work is commenced the sooner will trade be developed, whether in cotton or other articles, and the British taxpayer be relieved of a considerable burden. I don't know any better investment for imperial funds than this Nigerian Railway, for not only will it turn Northern Nigeria into a paying concern, but it will at the same time afford a priceless boon to the most important manufacturing industry of the British Empire. In addition to the railway, roads to act as feeders for it, and a public steamer service on the Niger River will be necessary, but these can come later on. It is hardly necessary to say that it would be unwise for the Association to embark on any costly experiments in cotton cultivation if the Government decides not to supply the necessary funds for the provision of proper means of transport.

It has very justly been argued that if the efforts of the Association are eminently successful more cotton will be produced than is required, and the price will fall so low that all the people we have induced to cultivate cotton will suffer considerably. Some would say that it will be time enough to bother about this when the possibility is turned into a fact; but I think I should be paying a poor compliment to this important Society if I were to imagine that you were accustomed to treat important questions in such a short-sighted and unstatesmanlike manner. As far as those countries are concerned where long

stapled cotton would be grown I do not think we need trouble ourselves much, for even if there were a substantial fall in prices, there would still be an ample margin of profit; but when we turn to West Africa the question arises, and must be considered, Will West Africa be able to compete with the United States? At the moment one cannot say definitely what is the present cost of production in West Africa, and even if we knew to a fraction what the cotton grown up to now had cost, it would not be much guide, for there is no doubt if the industry extends and better methods of cultivation, ginning, pressing, and handling are introduced the cost will be very much less. There are, however, one or two things we do know. Labour in West Africa is very much cheaper than in the States, for any amount of labour can be had for 6d. to 1s. a day. And further, land in West Africa can be had at an almost nominal rent, and if cultivated by the native, as a rule no rent at all is paid, except, perhaps, some small tribute to the chief of the community. On the other hand, I am informed that in the United States a cash rental of 10s. to 20s. per annum per acre has to be paid, or when, as is mostly the case, the rent is paid in kind, about one-third of the crop is handed over for the rent of the land, another third for the use of implements, fertilisers, etc., when provided by the landlord, leaving one-third for the farmer. Although in the States there are many plantations of considerable acreage, the bulk of the crop is grown on small farms varying in size from a few acres up to 20 acres. I am informed that larger farms are quite the exception. You can readily understand that these small farmers are not wealthy men, and consequently cannot afford to wait until their crop is harvested. They have to get credit from the local stores or from the local money lenders, which generally takes the form of mortgages on their growing crops. This and the rent is a very heavy tax on the cultivator, and a serious addition to the price of cotton. On the other hand, I am informed by every West African Governor with whom I have discussed the question that the West African can get on perfectly well without any advance whatever. I have also talked the matter over with Mr. Neely

and with Mr. Prince, and they both say there is not the slightest necessity for any advances. Their opinion is, I think, very important, for they have both been brought up in the cotton fields of America, and are accustomed to this system of credits. Taking one thing with the other I am firmly convinced that West Africa will soon be able to grow cotton much more cheaply than America, and should production overtake consumption, it is the American farmer who will suffer by the fall in price and not the West African.

Before I conclude I should like to say one word about the future. Until just the last month or two many of us felt much disheartened by the lack of financial support we met with in quarters where we should have received the most. Oldham did well, but nowhere else. This, I am glad to say, is now all changed, and the North-East Lancashire Masters' Association have set a most worthy example by increasing their subscription to £10,000, and for this increase we owe very great thanks to Mr. Henry Higson. There is also a movement on foot outside the Association for raising a very large sum of money in its aid, and I, for one, hope it will never again be necessary to issue another appeal for support. Many of the committee have most unselfishly devoted much valuable time to the work, and time is just the one thing a hard-worked business man can least afford to give. Speaking for myself and my colleagues, I can only say that we are most of us willing to devote our time for the good of Lancashire, but the least we ask in return is that Lancashire should back us up with ample financial support.

In order to make it perfectly clear why additional funds are required it will be as well to give an outline of the larger plan of action, which has recently been receiving the careful consideration of the Association. We understand that in Nyassaland 100,000 acres could be put under cultivation in the season 1904-5 if the Association is willing to finance the same. An advance of 20s. an acre would be required, also assistance towards providing seed, gins, etc. Estimating the expenditure at 30s. an acre it gives a total outlay of £150,000, much of which, if not the whole amount, would be recovered in the first

season. If Lancashire earnestly desires this large extension of cultivation, an immediate decision will be necessary, for a commencement would have to be made towards clearing the land in June or July this year, and all preliminary details would require to be settled before that date.

Turning from the east of the African continent to the west, we find that owing to the nature of the people and local conditions but slow progress can be made under the present system, whereby the natives should be educated towards cultivating small plots of cotton on their own land. In view of Lancashire's very urgent need, the committee are of opinion that it would be most advantageous to try the experiment of establishing several large model plantations in the most promising districts. These farms would have the most valuable educational effect on the natives, and would, of course, be made into centres for buying, ginning, and pressing. Should it be found that by this method cotton could be grown at a profit, it might later on be advisable to largely extend these plantations, and so get more rapid results than can be obtained from the comparatively slow process of educating the natives to grow cotton on their own account. Such a plantation, with the necessary equipment of gins, presses, seed, implements, etc., can be estimated to cost £5,000 to £10,000 for the first year. It is certainly desirable that several of these experimental farms should be established, and in order to carry out this work effectively funds to the extent of £25,000 should be provided for this year alone, with an even larger extension in 1905.

There is one further advantage in the establishment of these model farms, viz., the excellent means they would provide for the education of experts. The available supply of competent men, with the necessary knowledge, is exceedingly limited, and it is absolutely necessary that young Englishmen should be sent out at once to obtain a thoroughly practical education in cultivation.

In addition to this expenditure in Africa it might be desirable to devote, say, £20,000 towards the establishment of ginning and buying centres in other parts of the world. From the

above it will be seen that the Association could very usefully lay out £250,000 during the two ensuing years. Much, however, of this expenditure would be recovered in the form of cotton grown, and can therefore be regarded as capital expenditure. This capital could continue to be usefully employed in carrying on the work, or could be returned to the subscribers should the Association at any time consider that its work was completed and could be safely left in the hands of others. It therefore rests entirely with Lancashire, and I might say with the country generally, to declare, in no uncertain voice, whether they are prepared to find the necessary funds for the salvation of the largest industry of the world.

I think the account of the work of the Association which I have given you will enable you to partially realise the enormous task we have undertaken, and the huge field we have to cover. Now that larger funds are coming in, and that we are consequently able to develop experiments on a much larger scale, I am confident in two or three years' time we shall obtain a really appreciable and much-needed addition to our sadly attenuated supplies of cotton. I believe this movement to be one of the very highest importance to Lancashire, and looking ahead no one can tell into what it may ultimately develop—possibly some huge corporate body on the lines of, say, the Mersey Dock and Harbour Board, and which will be managed solely for the benefit of both growers and users, and we may then see Lancashire practically growing her own cotton, and having it brought straight from the producer to the doors of her mills, without hindrance or interference from greedy speculators and gamblers and others who prey on the commerce of the world. Let Lancashire only realise that it is no use going to Governments and asking them to stop speculation. Let her learn her lesson and realise to-day, if she has not done so already, that her salvation lies mainly in her own hands, and then, and not till then, we may be able to look on Mr. Sully and all his gang as benefactors in disguise.

MANCHESTER STATISTICAL SOCIETY.

Value and Comparability of English and German Foreign Trade Statistics.

By Barnard Ellinger.

Read March 9th, 1904.

At the present time, when we have so impressive an object lesson before us showing the extent to which statistics may influence legislation, it cannot be without interest to examine the system of English* statistics of foreign trade, in order to endeavour to determine to what extent the figures are reliable, and eventually to suggest methods by which we may attain results likely to give us a more accurate test of the real value of exports and imports from and to the United Kingdom.

With this object in view, I propose to compare our methods with those of Germany, and to examine the extent to which the figures of the "Annual Statement of Trade" differ from those published by the Imperial German Statistical Department; also to investigate the nature of these differences, and to endeavour to find out which figures are more likely to represent to us the true state of trade between the two countries.

It is unnecessary to enter at great length into an explanation of the methods by which the English figures are compiled, as these methods are well known. Every importer and every exporter is obliged, under the penalty of a fine, to make a correct return to the Customs of the quantity, value, nature,

* The term English includes throughout Scotch and Irish.

country of origin, or destination, of any parcel of imported or exported merchandise which he may handle. The value in case of exports is supposed to be the value at port of embarkation, or the f.o.b. price, and in case of imports the value at port of discharge, or c.i.f. price. The latter, therefore, includes sea freight and insurance, whereas the former does not. It is for this reason that we call the value of freight earned by British ships carrying produce from this country "invisible" exports, as also freight earned on such imports into this country as are brought hither in British bottoms.

The large amount of freight earned by our ships carrying produce between colonial ports, foreign ports, or colonial and foreign ports may perhaps more properly be considered under the head of foreign investments.

In the form of return for exports the last column is headed "Ultimate Destination." Thus, goods shipped to Rotterdam, but destined for Germany, should be declared as going to Germany, and not as going to Holland; and goods going to Holland, for transhipment thence to Java, should be declared as shipments to Java.

Shipments for Switzerland and Bolivia are, however, not stated in our returns, exports thither being credited to the country to the ports of which they are shipped.*

It is frequently asserted that large quantities of goods destined for Germany, but shipped *viâ* Belgium and Dutch ports, are wrongfully credited to these latter countries. I am informed that merchants, in advising their forwarding agents of exports, often do not state the ultimate destination of the goods; the actual return to Customs is, however, made by the forwarding agent, who fills up the last column of the form according to the destination as marked on the packages and not according to the advice of the exporters. Doubtless a certain amount of goods destined for Germany are wrongfully credited to Holland and Belgium, particularly in cases where packages do not bear the name of the town of ultimate destination, but are only port-

* Imports from Switzerland and Bolivia are likewise credited to those countries from the ports of which the shipments were made.

marked with the name of the port of discharge. I have, however, been unable to convince myself that there is in this respect any error of great magnitude. The question has lately been taken up by the Manchester Chamber of Commerce with the Board of Trade, and we may hope that through their efforts some further light may be thrown on this important point. The Board of Trade have now issued circulars pressing for more exact declaration of "ultimate destination and country of origin," and have somewhat altered their forms of return for imports, adding a column headed "Name of place whence goods were consigned," in addition to the column headed "Port or place whence."

In the recent Blue Book, "British and Foreign Industry," issued by the Board of Trade, it is stated that a large part of the trade recorded in our official returns as between the United Kingdom and Holland and Belgium is, in reality, trade with Germany which passes through Rotterdam and Antwerp. It is not explicitly stated that this is meant to refer to exports as well as to imports, but as the statement is made to justify the bracketing together of Holland, Belgium, and Germany in considering our export trade to the latter, it may be taken that the Board of Trade believe that there is here also a substantial error. The following figures will throw some further light on this point:—

Exports from United Kingdom of British and Irish and Foreign and Colonial Produce (exclusive of Specie and Bullion).

	Figures from English Returns £		Figures from Returns of Countries specified. £
To Switzerland.....	—	...	2,162,000
„ Austria	2,511,000	...	5,886,000
„ Belgium	12,619,000	...	11,356,000
„ Holland	13,071,000	...	19,700,000* †

This shows us that according to English figures we exported to the above countries £28,000,000, while according to the returns of these foreign countries they imported from us £39,000,000. The difference is much too large to be accounted for by freight. On the other hand, different methods of valuation will doubtless account for part of the difference; but there is

* Special trade. † Only goods going through Holland in bond, or in the case of free goods, specially declared in transit, are dealt with as transit goods; the result being, owing to Holland being to a considerable extent a free trade country, that a large quantity of really transit goods enter into the Dutch figures of special trade.

certainly no sign here that large quantities of exports from the United Kingdom to Germany are wrongfully credited to Holland and Belgium in the English returns.

In the case of imports, however, matters are very different, imports being as a rule credited to the country whence they are shipped instead of to the country of origin.

In the note of the "Annual Statement of Trade," it is stated that in those cases where this method is likely to be seriously misleading as to the real course of trade, efforts are made to attribute imports, as far as possible in the absence of certificates of origin, to the country of origin and not to the country of shipment.

Thus, Japanese, Chinese, or other Eastern goods transhipped at Colombo or Marseilles, and Chilian or Peruvian goods transhipped at Colon, are, where possible, credited to the country of origin, and not to the country at the ports of which they were transhipped.

It has been found possible, to a lesser extent, to correct the returns of Canadian products coming during the winter season *viá* United States ports, or United States products coming during the summer season through Canadian ports; and it has not been found possible at all to correct the returns of Russian products coming through Germany, or German, Austrian, and Swiss products through Holland and Belgium. Some Italian products come likewise through Holland, Belgium, and France, and are in each case credited to the country of shipment instead of to the country of origin.

In reference to the question as to how far we can depend upon the correctness of the returns of value made by English exporters and importers to the Customs, I venture to repeat here some remarks which I made in a paper read at the Glasgow meeting of the British Association, in 1901*:—

"I must confess that I am very loth to place much reliance upon figures dealing with value only, as I am very doubtful as to the accuracy of the returns of value made to the Customs by exporters and importers. There would appear to be

"Thirty Years Exports of British and Irish Produce."—*Economic Review*, Dec., 1901.

very great laxity in the manner in which these returns are made, both for exports and imports.

Sir Robert Giffen, in a paper on the use of import and export statistics read before the Statistical Society in 1886, drew attention to this probable error, but the error is likely to have been greater in the period subsequent to 1886 than in the fifteen years prior to that date. I have endeavoured to find out the extent of probable variation, but it is not an investigation which can be carried on by a private individual with any chance of success. If, however, there is a likelihood of any substantial inaccuracy, the investigation of the error is a work which might very suitably be undertaken by the Chambers of Commerce of this country. If it were not for the possibility that the error has grown in extent it might appear that the inaccuracy, if any, would not materially vitiate the value of comparisons between different series of years, as it might be assumed that it would be as great over one series as over another. I do not think that this assumption is justified. I believe that a very large proportion of goods exported from this country and sold on a c.i.f. (cost, insurance, and freight) basis are declared on this basis instead of on the f.o.b. (free on board) value.

Now, the proportion of goods sold now on a c.i.f. basis is vastly greater than it was 20 or 30 years ago, or even 15 years ago, and to the extent of this error the sterling value of our exports is unduly swollen, because in drawing up the balance of our international transactions we are accustomed to treat freight on exported goods carried in British bottoms as an invisible export; but to the extent to which our export returns are c.i.f. values instead of f.o.b. values, this export, instead of being invisible, is actually present in the valuations.

Furthermore, with the increased pressure of business, and the total immunity from the consequences of their sins which the clerks responsible for the declarations for Customs entries have experienced, the carelessness on their part may be assumed to have grown. The entries for Customs of non-dutiable goods is probably the one piece of work in a well-regulated merchant's office which is entirely without check of any sort.

The systems of declaring values seem to be very numerous. I have heard of a firm who until recently declared all exports at 20 per cent over cost, and who now declare everything on a c.i.f. basis. Another firm, however, was in the habit of declaring 10 per cent under invoice price. One firm declared all its shipments of cotton goods on the assumption that 2,000 yards were worth £20, and another on the assumption that all unbleached cotton cloth was worth 2d. a yard.

I believe large quantities of goods are declared by forwarding and shipping agents, who in the absence of declarations of value from the merchant assume a value for Customs statistical purposes.

I have been told that the error in declarations of metals and hardware exported may be regarded in many cases as very large. Such exports, for instance, as bar iron are often declared approximately at the then ruling prices, whereas on a large proportion of the shipments there are "extras" amounting to anything up to 40 per cent or more; that is to say, the bars shipped are of much less thickness than the bars for which the basis price is quoted, and consequently cost much more per ton. I believe that wherever possible, attention is drawn by the Customs authorities to any very obvious error; but it is naturally quite impossible for them to at all accurately judge of the correctness of the values given for goods shipped when the quality is not declared, and there may be a possible variation of perhaps 50 per cent, or even more, between the lowest and the best quality.

I do not think that the values given of imports are more reliable, except to this extent, that the values declared of such imports as the graded descriptions of wheat, which can be controlled by the Customs authorities, or the graded descriptions of raw cotton, are probably as nearly exact as can be ascertained, and that such items form a considerable proportion of our total imports. But in the case of ungraded qualities the error is probably frequently much greater, and in the very few cases where I have been able to obtain figures, mostly for miscellaneous imports, I have come across results such as the following: A parcel of drugs declared at £735 realised £1,050; a parcel of

finishing material declared at £250 realised £128; another parcel realised £134 and was entered at £229; a mineral cargo entered at 60s. per ton realised 46s. These examples show errors of from 25 to 100 per cent, and if they exist to any large extent, which I believe they do, they may make any conclusions drawn from the sterling amount of our exports and imports very unreliable, at any rate when dealing with details. I have no reason, however, to suppose that the quantities returned are equally unreliable, it being easier for everyone concerned to declare correct than incorrect quantities."

Before leaving the question of the English returns, it is necessary to mention the monthly statements issued by the Board of Trade as apart from the "Annual Statement of Trade" compiled by the Customs. The figures are drawn from the same sources as are those of the "Annual Statement of Trade," but the classification is somewhat different, the Board of Trade separating living animals, articles of food and drink, metals, chemicals, dyestuffs and tanning substances, raw materials, manufactured goods, and partly manufactured goods. The classification, however, is unsatisfactory, in so far as such things as jam, confectionery, biscuits, spirits, and beer are entered as food exports, and not as manufactured goods. On the other hand sawn timber comes under the heading of manufactured or partly manufactured goods. This was pointed out by the Board of Trade in their recent Blue Book on "British and Foreign Trade and Industry."

The English returns separate exports of British and Irish produce from the re-exports of foreign and colonial produce. Ship stores and coal used on outward voyages are not included in our returns of exports.

We now turn to the German returns, which in 1902 comprised 24 different books, each dealing with a separate country or group of smaller countries.

The trade with Great Britain and Ireland and the Channel Isles forms one book, and the figures are preceded by an exhaustive survey and analysis of the trade of the year in question and a comparison with the four preceding years.

Germany further separates its trade into "Special Trade" or Spezialhandel, and Gesamteigenhandel or "Total Trade."

In the former is comprised:—

1. All goods imported direct into the Zollverein or from "Freibezirken," *i.e.*, duty-free districts, or taken out of bonded warehouses and either for consumption or for a process of improvement in manufacture done *for account of a German subject.*

2. All goods exported from the Zollverein; and

3. Except the manufactured goods re-exported after a process of improvement in manufacture *for account of a foreigner.*

The "Total Trade," however, includes—(1) All goods imported direct into the Zollverein or imported into duty-free districts or bonded warehouses, and all imports which undergo in Germany a process of improvement in manufacture *whether for German or foreign account;* (2) all exports whether direct out of the Zollverein or from free districts or bonded warehouses.

The German returns are for the German Zollverein only, and do not therefore include the trade of the free ports of Hamburg, Bremen, and Lubeck, except, of course, in so far as they include exports from the Zollverein to the free ports and imports from these free ports into the Zollverein. Although the trade of these free ports is very large, there is neither any very large production nor consumption in them nor in the duty-free districts, the total population probably of all the free ports and duty-free districts not exceeding 30,000 inhabitants. Actually only a very small part of the free towns enjoy free trade, the largest part having been in 1888 incorporated with the Zollverein; but the English returns do include exports to and from the free ports, and figures therefore, particularly of imports of tropical produce, require careful scrutiny—*e.g.*, the English returns show an import in 1902 of £326,000 of coffee from Germany, whereas the German figures show an export of £10,000 only, the difference obviously coming through the free ports, and never entering the Zollverein.

The classification, then, which approaches the nearest to the English is the classification of "Total Trade," for it does not exclude goods imported for processes of improvement for foreign

account, and includes all goods imported during the year under review, whether direct or into bonded warehouses, whereas with the "Special Trade" it happens that goods go into bonded warehouses where perhaps they remain some months and may only appear in the returns of the following year.

As regards origin and destination the German basis is the same as that of Great Britain. Formerly Germany credited to the United Kingdom in her returns all exports thence, whether of British and Irish produce or foreign and colonial produce; but now exports from the United Kingdom of foreign and colonial produce are credited to the country of origin—*e.g.*, Australian wool sold in London for account of the consignor is credited in the German returns to Australia and not to the United Kingdom.

This method seems to have been latterly more strictly adhered to, for it is given in their returns for 1902 as one of the causes why their imports from us in 1902 appear as M47,000,000 less than in 1901.

The figures are rounded off, *i.e.*, figures of under M500 are not reckoned and figures of over M500 are reckoned as M1,000. This is preferable to our method, as the statement of exact figures conveys a false impression of mathematical correctness in our returns.

The values are not returned by the exporter or importer, but are fixed by a commission of experts, with assistance from representative merchants, Chambers of Commerce, etc., who supply the Commission with annual average prices.

The basis of the valuation is the average wholesale price of the year as the goods pass over the frontier of the Zollverein, *i.e.*, in the case of imports including freight and excluding duty, and in the case of exports including carriage to the frontier.

On any imported goods on which there is a drawback of Customs or Excise duty on being re-exported, the value in the returns is supposed to be the value after deduction of such drawback. The German returns do not include imports of shipbuilding material. The note to the German returns states that these amounted in 1902 to £300,000, mostly from England.

The difference which the Germans make between their "Special" and their "Total" trade enables us to judge of the quantity of goods which we send to Germany to undergo an improving process for English account, for although the result is somewhat vitiated by the fact that the former trade includes goods taken out of bond and from free districts into the Zollverein, whereas the latter includes goods coming into the Zollverein or into bond or free districts, we may take it that over a series of years the two amounts will fairly well balance. An investigation of the German figures appears to show that in the year 1902 we sent £150,000 worth of unprinted woollen goods to Germany, which there underwent a further process for English account and were then re-exported.

In the same way £850,000 of herrings were imported from the United Kingdom and appear to have been treated in Germany for English account and re-exported.

The total export of woollen goods in 1902 to Germany was, according to English returns, £934,000 and of herrings £2,107,000, and according to the German returns £779,300 and £2,029,900 respectively.

Again, the German figures show us that out of a total import of cotton cloth (*i.e.*, exclusive of cotton yarn and sewing cotton) from the United Kingdom of £1,201,550, £217,400 was sent for a further improving process for English account, and re-exported. The English returns show a total export of cotton cloth amounting to £1,425,530 for the same year.

Apart from the differences arising from different methods of valuation, with which I will deal later, the differences between English returns and the German returns will induce us to bear in mind, when using the figures, that exports from the United Kingdom to Germany according to English returns should appear greater than the German figure by the value of

1. Shipbuilding material, none of which is entered in the German returns.

2. Goods sold to Hamburg or other free ports, which are not destined for the German Zollverein, and the ultimate destination of which is unknown.

3. All goods shipped to Switzerland *viâ* Germany.

4. Any goods shipped to Austria and the Baltic States, etc., *viâ* Germany, which are credited to the latter country, owing to destination being unknown or wrongfully stated.

Our figures should appear smaller than the figures of the German returns by—

1. Cost of sea freight from here to Germany, or when shipped *viâ* Holland or Belgium, cost of sea freight and railway carriage to the German frontier.

2. The value of any goods destined for Germany shipped *via* Holland or Belgium and wrongfully credited to the latter countries. I do not believe that this error assumes any considerable magnitude.

The English figures of imports into the United Kingdom from Germany in comparison with German figures of exports to the United Kingdom should appear larger by the value of

1. Foreign goods (not German) sold to us by Hamburg or other free ports, and shipped direct thence, when the place of origin is wrongfully stated as Germany in our returns.

2. All goods coming from Switzerland *viâ* Germany.

3. Russian, Austrian, Italian, or other goods coming to us through Germany, such goods being credited in our returns to Germany.

4. By cost of sea carriage, or when shipped *via* Belgium or Holland, sea freight plus cost of railway carriage from the German frontier to seaport.

The English figures of imports from Germany in comparison with the German figures of exports to England, on the other hand, should appear smaller by the value of German goods coming to us through Holland or Belgium, such goods being credited to these countries instead of to Germany.

It is not sufficient, however, when making comparisons between the two returns only to take these facts into consideration, for we must also bear in mind the different methods employed in arriving at the value of the exports and imports.

It may, however, be useful to cite here the German and English figures for the last few years:—

Imports into Germany from the United Kingdom.
Bullion and Specie omitted.

	German figures (000 omitted). Total trade.	English figures (000 omitted). Total produce.	English figures. British and Irish only (000 omitted).
1898	£29,900	£33,331	£22,525
1899	36,700	37,978	25,996
1900	38,900	38,542	27,999
1901	29,100	34,241	23,573
1902	26,600	33,094	22,850

Exports from Germany to United Kingdom. Bullion and Specie omitted.

	German figures (000 omitted).	English figures (000 omitted).
1898	£39,700	£28,534
1899	42,300	30,123
1900	45,600	31,181
1901	47,900	32,207
1902	50,500	33,633

In the case of exports to Germany for 1898, 1901, and 1902 German figures lie between the two sets of English figures for British and Irish only and British and Irish and foreign and colonial produce, a large part of foreign and colonial produce possibly being credited to England. In the case of 1900 the German figures are larger than the total English figures for British, Irish, foreign, and colonial produce. This was a year of great expansion of price, and it may be that the German experts possibly overestimated the rise in the price of imports or that the English returns for value do not sufficiently represent the real rise in prices, or both causes may have acted together and thus have caused the great difference. The same remarks apply to the figures for 1899 in a minor degree.

The divergence, however, in the case of imports is, as we should expect, considerably larger. This is possibly partially accounted for by the amount of German goods coming to us through Holland and Belgium and wrongfully credited to these latter countries. If this were the only difference between the English and German returns it would show that in 1902 we received

German produce of the value of £15,000,000 through Belgian and Dutch ports. This, however, as I shall show later, is not borne out by the Dutch and Belgian returns.

According to the German returns the year 1902 shows an increase of exports to England of £8,000,000 over 1898; according to our returns an increase of £5,000,000.

Let us now return to our original comparison of English and German returns. The point which we have so far left out of consideration is the effect on the total returns of value of the different methods of valuation ruling in England and Germany.

Any conclusions which we may arrive at as the result of our investigations are much vitiated by the fact that such investigations are necessarily confined to a very small number of commodities, because while we only return a few articles by weight Germany adopts this method for all commodities. It is therefore quite impossible to compare the valuations of such things as textile piece goods, as also such commodities as chemicals, leather, machinery, etc., these latter being entered in our returns by value only.

Certain commodities are, however, fortunately declared by both countries by weight. For example, coal, coke, and patent fuel; and a comparison shows the following result:—

Exports to Germany 1902 and 1898.

	German figures.			English figures.	
	Tons.	£		Tons.	£
1902.....	5,244,246	3,729,100	...	5,835,644	2,969,696
1898.....	4,918,039	2,739,400	...	4,711,370	1,979,531

The average c.i.f. price for 1902 according to the German figures being therefore 14·03s. per ton, and the average f.o.b. price according to the English figures 10·18s., leaving a margin of 4s. per ton for freight. The average price for 1898, on the other hand, however, only leaves a margin of 2s. 9d. for freight—thus, German c.i.f. valuation 11·14s. per ton; English f.o.b. valuation 8·40s. per ton. I am informed that the freight during 1902 would average about 3s. 6d. to 3s. 9d. from Newcastle to Hamburg, and from South Wales to Hamburg from 4s. to 4s. 3d.

Some other articles show the following results:—

Cotton Yarn and Sewing Cotton 1902.

	German figures. Tons.	£		English figures. Tons.	£
	15,645	2,324,000	...	16,429	2,462,000
Average price per ton.....	£148.		...	£149.	

Pig Iron.

	German figures. Tons.	£		English figures. Tons.	£
	107,607	301,300	...	111,242	305,201
Average price per ton.....	56/-		...	55/-	

which thus allows 1s. per ton only for freight.

Herrings.

	German figures. Barrels.	£		English figures. Barrels.	£
	1,268,704	2,029,900	...	1,570,732	2,057,726
Average price...	32/6		...	26/3	

Caoutchouc and Guttapercha.

	German figures. Tons.	£		English figures. Tons.	£
	3,549	968,900	.....	3,803	1,000,362
Average price per ton.....	£273.		.....	£263.	

The variations in the values of these commodities are then, as we should expect, largest in the cases of those which are subject to the heaviest freight, pig iron forming an exception. The average price, however, of the articles cited above must be fairly easy to judge, and the German valuation therefore relatively accurate; but if we could examine a sufficient number of smaller articles we should probably find a much greater variation. For instance:—

Books and Playing Cards 1902.

	German figures. Tons.	£		English figures. Tons.	£
	385	£68,479	.....	416	£92,500
Average price per ton...	£165.			£240.	

showing a difference in average price of nearly 50 per cent.

It is interesting to glance for a moment at the different degrees of divisions and sub-divisions in the English and German returns.

We have 204 groups of British and Irish and foreign and colonial produce exported to Germany, of which 76 divisions, with 238 sub-divisions, are British and Irish, and 128 divisions, with 260 sub-divisions, foreign and colonial produce.

Germany, on the other hand, divides her imports from us in 44 groups, containing 926 different classifications.

English business men object to exposing more of their business than necessary even to the Government, and it has been hitherto for years against the policy of our Government to expose traders to any unnecessary interrogation or inconveniences; nevertheless, the more minute division of classifications employed by the Germans has many advantages—*e.g.*, we simply divide our exports of cotton yarn to Germany into two classifications, viz., "grey" and "bleached or dyed yarns," thread for sewing appearing as a separate classification. Germany, however, divides her imports from us of cotton yarn and sewing cotton into 19 classifications, according to the counts, or whether same are singlefold, twofold, threefold, or more, or grey, or bleached or dyed. From this method of classification we can learn of which special kinds of yarn the exports are declining or increasing; whether a trade shows a tendency to turn to more or less labour-employing descriptions; and the figures thus given are certainly of more value to the statistician, and possibly also in many cases to the merchant or manufacturer. A palpable example of the weakness of our classification is afforded in the returns of cotton piece goods, "dyed and manufactured of dyed yarns," the total exports of which amount to over £12,000,000; yet here we have two entirely different trades grouped together, whereas under the heading of sugar and sugar products we find classifications such as "solid glucose," with a total export of £5,145 in 1902, "liquid glucose," £942, "saccharin," £594, "liquid blacking" £1,750, "solid caramel" £2,347, "liquid caramel" £1,909, etc., etc. Probably these classifications exist for the purposes of drawback of duty, but if we can take this trouble for trades of this description surely we can for two trades aggregating £12,000,000.

The question of a revision of our classifications requires urgently to be taken in hand.

Before leaving the point of classifications generally we may say that out of a total export to Germany of £33,000,000 in 1902 44 articles out of 204 were articles the export of which exceeded £100,000, and these 44 descriptions represented an export of £27,300,000 out of a total of £33,000,000.

Of British and Irish produce alone 26 articles out of a total of 76 represented £20,400,000 out of a total of £22,000,000. These are:—

	£
Coal, Coke, and Patent Fuel	2,969,000
Cotton Yarn	1,626,000
Cotton Goods (entered by the yard)	1,057,000
Cotton Goods (entered by value)	1,194,000
Herrings	2,057,000
Machinery	1,370,000
Iron (wrought and unwrought)	1,027,000
Woollen and Worsted Yarn	3,163,000
Woollen and Worsted Goods	937,000
Unenumerated Articles	710,000
Parcel Post	540,000
Ships	762,000
Leather (wrought and unwrought)	358,000
Chemicals	238,000
Artificial Manure	418,000
Copper (wrought and unwrought)	279,000
Unenumerated metals	205,000
Oil	357,000
Painters' Colours	115,000
Seeds	104,000
Linen Goods	243,000
Linen Yarn	174,000
Hardware	100,000
Coal Products, except dyes	135,000
Manufactured Caoutchouc	149,000
Apparel and Haberdashery	103,000

We may now examine the figures of English imports from Switzerland, Austria, Holland, and Belgium, as we did in the case of exports to those countries.

Imports into the United Kingdom in 1902 from—

English Returns.		Returns of Countries Specified.
	Holland.	
£34,842,528.	...	£38,000,000
	Belgium.	
£26,538,759.	...	£14,356,040.
	Switzerland.	
—	...	£7,452,690.
	Austria.	
£1,339,758.	...	£6,957,747.

Showing that according to the English returns the United Kingdom imported from the four countries £62,000,000; whereas according to the Swiss, Dutch, Belgian, and Austrian returns they exported to the United Kingdom £66,000,000. This certainly leaves no margin for German exports to the United Kingdom through Holland and Belgium, and yet it is common knowledge that we do receive large quantities of German products through Holland such items as:—

	£
Dyes obtained from Coal Tar	959,173
Electrical Goods	162,965
Paper and Paper Goods	1,173,000
Toys	109,000

How much of this is German and how much Dutch I know of no means of determining, but the presumption is that the major part is German. As regards the Belgian figures, the Swiss and Austrian exports to the United Kingdom alone account for the difference in the two sets of returns, leaving no margin for German trade through Belgium.

We may usefully note some of the reasons given in the German returns for decline in the figures of certain commodities exported by us in 1902—*e.g.*, this decline is sometimes accounted for by them by an alteration in their basis of valuation with the object of attaining a greater degree of exactitude, sometimes by lower prices—and sometimes by a more exact classification of goods sold to Germany in England for foreign or colonial account which were formerly credited to England and are now credited to the country of origin.

Sometimes, of course, two or more of these causes are acting together.

One case is particularly interesting in view of the prevailing idea that increased exports denote prosperity and increased

imports are undesirable. The case in question is that of iron goods in 1902. Germany attributes the decreased imports to the unfavourable condition of German home markets, to which cause is likewise attributed their increased export to the United Kingdom.

In grouping all the figures together of Germany, Switzerland, Austria, Holland, and Belgium of exports to the United Kingdom and imports from the United Kingdom according to their returns, and comparing them with the equivalent figures shown in the English returns, we must be struck by the fact that the foreign figures, both for exports and imports, are so much larger than the English figures—larger to such an extent that the difference cannot be accounted for by difference in freight. They estimate that in 1902 they exported to us 116 millions sterling, whereas we estimate that we only received from them 95 millions sterling, showing a difference of about 20 per cent. On the other hand they estimate that they received from us in 1902 69 millions sterling, whereas we estimate that we only sent them 50 millions sterling, a difference of about 38 per cent, in both cases too large a difference to be accounted for by freight.

Is a possible explanation of this discrepancy the possibility that the Continental system perhaps tends to over-valuation and the English system tends to under-valuation? If this be the case it would greatly vitiate all comparisons as between the exports or the growth of exports of foreign countries and of the United Kingdom.*

A suggestion has been made that by international agreement all nations might compile their foreign trade returns on a common basis. This would, of course, be most desirable, and is an ideal for which we may well strive. Meanwhile there are perhaps some means of improving the utility of our present returns. I would suggest:—

1. That the Customs form of returns should in all cases be filled in and signed in the case of exports by the firm invoicing the goods to the foreign buyers, and in the case of imports by

* The valuations upon Dutch exports and upon non-dutiable imports have not been changed for many years and are, in a number of cases, notoriously excessive; for example, refined sugar is valued at 40 gulden per kilog., or about 34s. per cwt., and raw sugar at 35 gulden per 100 kilog., or about 29s. 9d. per cwt.

the firm to whom same are invoiced, and not by the forwarding agents, as is now the case.

I believe that this would ensure more correct returns by throwing the responsibility more directly on to the shoulders of those within whose knowledge the necessary information lies.

2. That besides our present returns of quantity and value we should in all cases make a return of weight.

In nearly all cases the weight has to be ascertained for other purposes, and at the cost of very little extra clerical work this item might be added to the information supplied to Customs.

It would not only enable us to compare our returns more accurately with those of foreign countries making returns by weight, but would in many instances be a valuable aid in judging of the state of the trade—*e.g.*, an increase in the yardage of cotton goods shipped might be wholly at the expense of quality; the knowledge, however, of the weight of goods shipped along with the knowledge of the yardage and value of goods and price of raw material would, in spite of the factor of size and filling, be a help in judging of an alteration in quality of the goods so shipped.

Not only is the comparison of quantity in textile goods vitiated by the question of quality, but it is also largely affected by the question of width. No distinction is made between yards of cloth 27 inches wide and yards of cloth 52 inches wide, although the labour expended on the latter is, of course, considerably greater than that expended on the former; of course our returns for value should, if accurate, rectify this discrepancy, but the addition of the factor of weight would be an additional safeguard in making comparisons.

An interesting question in this connection is that of "Splits," a term well understood in the staple industry of Lancashire. We make a piece of cloth, say 52 inches wide, and dye it or print it, as the case may be. Before shipping it, however, we split it down the centre, and it appears in our returns of export as double the length it was when in the looms and when it went through the printing machines, although nothing like double remuneration has been earned by the operatives employed in

the weaving, bleaching, dyeing, or printing. This exaggeration in the returns for quantity should, however, again be corrected in the returns for value.

In some cases, of course, such as machinery, value is the only possible factor which enables us to compare one figure with another, for the weight of the machine gives no indication of the amount of labour which has been expended on its production.

3. For reasons previously stated a more minute sub-division of our classifications is desirable.

4. An index number of the average price of each commodity exported or imported.

Of course the careful and conscientious man will, in making comparisons, use both value and quantity, thus in a manner doing that which an index number automatically does: but if each commodity had an index number in the column next to the values there would be no excuse for quoting the latter without the former, and the inquirer would thus be enabled at a glance to obtain a much truer idea of the real state of the trade.

5. The inclusion of Switzerland and Bolivia in our returns.

I am quite sure that both the Customs and Board of Trade make the best use of the figures at their disposal, but I feel that, at the cost of very little extra trouble, our merchants can do much to make these returns much more reliable. I have endeavoured to show how necessary it is to be careful in using the figures of our trade with Germany, and how many qualifications and limitations must be taken into consideration; and if this be the case with our German trade, it is also the case in a greater or lesser degree with our trade with every other country, and also certainly so when we come to deal with figures representing the enormous value of our total trade.

As our returns are at present they may be used as showing over a series of years the tendency of our foreign trade to increase or decrease, but certainly not to show any comparatively small percentage of increase or decrease over isolated years, and this is a warning which should at the present time be continually borne in mind.

MANCHESTER STATISTICAL SOCIETY.

The Garden Village of the Small Holdings Association.

By James Long.

Read April 13th, 1904.

One of the chief social topics of the hour relates to the increasing number of the unemployed in our towns and to the exodus of the rural workman from the country, which he leaves to swell the members of his class in the Metropolis and other great centres of population. The result of this movement is trouble on both hands, for while our city authorities are puzzled to discover a solution of the unemployed problem, our country people, and especially our farmers, find it difficult to obtain an adequate quantity of skilled labour, more especially between springtime and harvest. In some parts of England farming is becoming impossible; larger areas of land are annually being neglected or abandoned altogether, while the country people—as, for example, in that part of Surrey in which our colony is situated—are drawing almost all their supplies of garden and farm produce from London, the quality being in consequence inferior and the price exorbitant. Why has this difficulty arisen? I venture to believe that it is partly educational, partly that the younger men and women are dissatisfied with the humdrum routine of an unpromising country life—a dissatisfaction which is fanned by the contagion imparted by their friends in the towns and by the glamour and fascination of the music-hall and other alluring methods of excitement and so-called enjoyment. Is there a remedy for this state of affairs? My belief is that there is, and that it lies in the natural desire of man for the possession of a

home, of land, and of live-stock, and that in order to acquire possession of the one or the other he will undertake responsibilities which demand unceasing labour and a simple and frugal method of existence. The lot of the agricultural labourer to-day is by no means a promising one. His only hope is in the receipt of higher wages, and this hope can only be gratified as he believes by obtaining employment in a town—where, however, though he fails to recognise the fact, his increased expenses absorb more than the increase in his pay. The education and the experience of the average farm labourer have unfitted him for the acquisition and cultivation of land on the purchase system. Although most men with the inclination are able to save something, the labourer is one of the few who has made no progress in this direction. He lacks enterprise and energy. As is customary with his class, his duties are performed at a jog-trot, and he is manifestly unable to emerge from his groove and to undertake a responsibility involving abundant self-reliance which would necessarily follow upon his purchasing a few acres of land. The miner, the collier, and the artisan, often with the exercise of less skill, obtain high wages and are able to provide for the future if they choose. The railway porter, like the soldier of the imagination, carries position in his waistcoat pocket; the trader can commence business with a very small capital; but the labourer, who lives where successful shopkeeping is next to impossible, affords no analogy to either of these individuals. There are no prizes in the service of which he is a member, while the smallness of the wages he usually receives practically precludes the possibility of saving money, for few of us can realise the difficulty of putting aside a weekly sixpence from the pittance which must suffice to fill many mouths, and something more. Yet, what often follows immigration to the town? The young, sturdy, and vigorous countryman is gladly employed by those who are in want of strong arms and steady nerves, the wages are comparatively high, and, in spite of more costly lodgings and more extravagant rations, life swings merrily along, and the young man drinks of it to the full. He often adorns his person in the orthodox style, sports an occasional cigar.

joins a band of boon companions, some of whom were once precisely like himself, and thus he is gradually drawn into the vortex by which so many fine fellows are overwhelmed. His robust constitution, however — part of his inheritance — his frugal training and his native air have served him well, and he survives to marry and to settle in one of those dismal, gardenless terraces which abound in our third-class suburbs, which he reaches by railway and tramcar, involving a costly addition to his rent. Gradually he sinks into the usual type of an overworked, unhealthy-looking town employé, struggling to rear a still more unhealthy family. What is the result? The family circumstances and environment are such that one more group of human beings is added by the countryside to the still swelling town population, with its submerged tenth, its hospitals, its workhouses, and its cemeteries. This is how human life — the very pith and marrow of our manhood — is being used up. There is, after all, little difference in the method by which the human machine and the mechanical machine are respectively worn out; but there is this difference in the result—the human machine is reproductive, and its offspring reduces the physical power of the average man, and of the race to which he belongs.

Thus has the necessity arisen for the Small Holding and Garden Village Movement, which is intended to assist in the solution of one of those problems which is gradually becoming national in its aspect. What, may I ask, will be the result of this movement in the course of time if it is adequately supported? for it is already affecting the health, the fortunes, and the prospects of large numbers of people, and, so far as I am aware, there is no colony, whether among those in Lincolnshire, in Worcestershire, Dorset, Wilts, Northumberland, or Surrey, in which a shadow of failure has appeared.

Among the results I look for the following: —

(1) The repopulation of the country districts. There are some 27 families living on the colony established by Sir Robert Edgecumb in Dorset on poor land, where I believe only three or four families lived at the time of its purchase, and where one of these, the tenant, became bankrupt.

(2) The improvement of the health and physique of the people. I hold that it is impossible for children to live among the green fields, and to be fed upon milk, home-made bread, and fresh vegetables and fruit, without a change being effected in their weight, their size, and their mental and physical constitution. The animals of the farm improve in all physical directions in accordance with the character and quantity of the food they receive, and it has been shown by Dr. Hall, of Leeds, and others, that precisely the same results follow the improved feeding of children.

(3) The prosperity of a larger number of people. The existence of a colony or garden village in any district cannot fail to be followed by beneficial results to the working native inhabitants of the district; and where, as is already the case in existing instances, the colonists succeed, it follows that prosperity is increased.

(4) Increased employment to an increased number of workers—(*a*) On the land, for the intensive culture of the small holder demands abundant labour, especially at the time of spring and harvest. (*b*) In the building trade, which in our own district is visibly humming. (*c*) In road-making, well-sinking, brick-making, hauling timber and other materials from the railway to the colony, in the manufacture of building materials, joinery, metal-work and a hundred and one other articles. We have already employed a large number of men in each of these branches of labour. (*d*) In the handling of produce grown in increased quantities on holdings of small size, and in the conveyance of this produce to the consumer or to the large market.

(5) The occupation and improvement of the uncultivated, abandoned, and derelict land which still exists in large areas, and much of which—for it is mostly heavy land—is adapted to the production of large quantities of food, and especially of fruit and market garden produce. On the poorest clay, almost the poorest to be found in Kent, Dr. Bernard Dyer and his colleague, Mr. Shrivell, after five or six years of cultivation, have been enabled to grow enormous crops of almost all kinds of vegetables,

some of which were supposed to be unadapted to clay, and converted a barren field into a productive market garden, growing as much as 45 tons of rhubarb on an average of four years; 11 tons of potatoes, 8 years' average; 8¾ tons of tomatoes, 2,800 bundles of asparagus, 3 years' average; 17 tons of lucerne, 6 years' average; 27 tons of cabbage, 3 years' average; and approximately large weights of vegetables and fruit of many other kinds. In a word, the system will not only assist in the provision of abundance of food for the people of the locality and adjacent markets, but in increasing the value of the land itself.

(6) It will contribute to a much larger extent to our ability to feed ourselves as a nation. It has been recently suggested by an agricultural expert that in the event of national difficulty the potato might be grown to such an extent that were the wheat supply to fall short the people might still be fed; and, indeed, so long as manure is obtainable there is barely a limit to the capacity of a skilled man who is industrious to produce food of many kinds.

(7) It will diminish the rates and taxes payable in rural districts by reducing the number of unemployed, and consequently the amount of the poor rate, by increasing the rate per acre upon improved land; for this naturally follows, as, for example, where land rated to-day on account of its uncultivated condition at 5s. per acre becomes worth 20s. or 30s., owing to the labour which man has put into it, and by the increase in the number of houses constructed for the colonists. It is worth remarking that on Sir Robert Edgcumb's colony the rent was £240 per annum at the time of its purchase, while on the basis of the rentals of similar farms in the neighbourhood the present rent, if let to a single tenant, would not exceed £180, owing to the diminished value of land. Nevertheless, the rateable value of the estate has been increased to £313, owing to its division among 27 owners. Still further, I may add, the rateable value of the rural parishes of the Union in which this colony is situated fell from £80,000 in 1881 to £68,000 in 1895, showing a decline of 13 per cent; whereas the relative value of the colony rose in seven years by 34 per cent.

The introduction of the motor has brought our distant villages nearer to the towns and the railways and to each other, and the motor system will, in my judgment, play an important part in the establishment of garden villages. Our experience thus far has shown me that there are thousands of country-bred townsmen who are anxious to change their occupation for rural life, although on the basis of our own applicants it is probable that not more than 10 per cent have the means or capacity to make a start on the purchase system. Of the 1,200 applications which were made to us in 1903, a small proportion consisted of those impossible persons, city shopkeepers' assistants and clerks, who have no experience of the country or of any rural occupation. The remainder were chiefly composed of more or less practical men, the majority of whom possessed insufficient means. Of the suitable men, a considerable number were prepared, after making their purchase—for many, indeed, could not be accommodated—to continue wholly or in part in their present occupations until such time as the land was ready for them to devote their whole attention to its cultivation. These men could see their way, and were prepared as skilled mechanics, artisans, or pensioners, to combine the one occupation with the other so long as they found it essential. Of one fact I am assured—that the rural labourer, with very few exceptions, is not the man who will take up land, allotments excepted, under the hire or purchase system, except in a few particular districts; but that the man upon whom we may depend is the country-bred townsman who has never lost his attachment to the farm, and who has acquired sufficient business experience to enable him to combine with the labour of cultivation the capacity to sell his produce.

My own idea of the Garden Village is a compact and not too extensive property situated in a district in which agriculture is not highly prosperous, and in which the population chiefly depend for their food upon foreign produce. The soil should be substantial, preferably poor—if comparatively stiff or heavy, than light—such as sand, gravel, or chalk. It should be sufficiently well supplied with water, adjacent to the village, church, chapel, and school; drained; its fields conveniently divided by fences

and ditches, and all accessible from good roads. The houses should be at once substantial, simple, artistic—for most men take a pride in a prettily-constructed home—and conveniently equipped for warmth, cooking, and all necessary domestic purposes. The arrangement of the land, whether adjacent to the house or not, is a matter for the decision of the occupier, and will be controlled by his system of culture; but, in any case, he should provide a garden of sufficient size to supply his own table, and this should embrace a poultry-yard, this form of live-stock being supplemented by a breeding sow or two, and, in the absence of a cow, with one or two milch goats for the provision of milk for his children. A common or club room should be established for the use of the whole colony, and in some way supplied with newspapers, especially those representing farming and gardening, with technical books, some innocent games, and a few works of reference. There should be a club or co-operative society, controlled by a committee elected by the colonists themselves, and intended for the purchase and supply of food—whether for the home or the stock—manure, seeds, implements and utensils, coals, and the provision of the more costly articles of farm equipment, to be used in turn by those requiring them. The committee, too, should be charged with the conduct of the repair of the private roads, of the ditches and hedges adjacent to those roads, and they should represent the whole body where cases of appeal are essential against local rates, and in such instances as may occur in which the well-being of the colony is threatened. Little difficulties which may cause personal inconvenience and disagreement should be referred to this committee. In our own case, should questions arise between the colonists and the directors, it has been determined by our articles to refer them for settlement to our trustees—well-known, impartial public men of great experience—Sir James Blyth, Bart., and Mr. I. H. Whitley, M.P.

The Cudworth Colony is an experiment, but it has succeeded—if we may be guided by our present results—beyond expectation. Many estates were inspected, but time and patience were and are needed in finding the most suitable and in guarding against ulterior

difficulties. I am satisfied, however, that there are many suitable estates in the market at prices within the reach of our organisation; but for a time at least I believe that a colony should not be too far from either railway or town, inasmuch as buyers still fear distance—that fear, however, will be dispelled by experience. Proximity to a town means greater cost, not only in the purchase of the land, but for the labour necessary for building purposes, as well as higher rates. On the other hand, distance from a town means cheaper labour, lower rents, reduced cost of the land, and higher cost for the haulage of the materials necessary either for building purposes or for the feeding of the stock and the soil. Most of the difficulties, however, which exist in the last-named districts will be cured by the aid of co-operation, and the improvement and reduction in the cost of motors intended for haulage purposes in particular will, I believe, enable any colony to obtain all its requirements with speed and certainty at such a diminished cost, that local railway stations will be abandoned for the towns, and goods brought direct from manufacturers instead of being first despatched by rail and then hauled by waggon from the station. As I write heavy goods for the colony are being delivered by motor from a distant town, not only superceding the railway and horse haulage from the station, but saving at least three days in time. Where the members of a colony, consisting of 40 or 50 families producing goods for the market, combine for the purpose, they will be able, if I am not mistaken, to place their goods on the local or city market a great deal more quickly and with less difficulty and cost than the foreigner, of whom we hear so many complaints.

It is often suggested that the life of the small owner of land is one of considerable hardship; that his existence is a burden, and that it is undesirable to increase the small-ownership system; but, as I know from experience on the Continent, he is precisely the person who is unwilling to exchange his lot for the more highly-paid occupations in which town workers are engaged. The small land owner is the backbone of all the leading agricultural nations in Europe, and he sticks to the

land, not because of the large profits with which it provides him, but because it is his own. It is desirable that there should be such a class, and it happens that the newer conditions of life not only demand its institution, but provide methods for its support without which small farming might not succeed. Co-operation, which has raised Denmark to the position of the richest country in the world, next to our own, for its size, is the lever which is employed by peasant owners in every country but Britain. Its practical absence here is owing to the non-existence of the men for whom it was primarily designed, and in consequence there are almost no village banks, mutual insurance societies, or local cattle breeding clubs, nor such other organisations as the Swiss, the Danes, the Germans, and even the Luxembergers have established for national utilitarian purposes.

I have no doubt that some of the many who are constantly asserting that small farming will not pay have commenced to believe their assertions to be true, they have been made so often; but I would point out that the profits of the soil depend chiefly upon labour and skill, and both are usually rewarded. There are many thousands of acres of land within sight of St. Paul's Cathedral which do not return a gross profit of more than £5 per acre per annum, and yet within the same limited area there are market gardeners and nurserymen—the majority of whom are humbly born and imperfectly educated, but who by experience are accomplished and skilled men—who are able to realise from £100 to £1,000 per acre for their produce, in large part, it is true, by the aid of glass. If this is not farming in the accepted sense of the word, it is crop production, and the margin between the figures which I have suggested is just as wide and no wider than the capacity which exists between man and man.

In that part of Surrey in which the Cudworth Colony is situated, the soil is not properly tilled; practical farming is at a discount, and the land is becoming more and more extensively occupied by wealthy residents, many of whom object to the disturbance of their equanimity or the spoliation of their view of the landscape by the introduction of a Garden Village

or a series of small holdings. The poorer members of our city populations, as in London, are being gradually pushed north-east on to the clay of Essex, while their wealthier neighbours are enabled to pitch their tents upon the gravels and sands and the chalk hills of Surrey in the south. The land laws enable owners of land adjacent to a population, whatever its position, to obtain their own figure from the public, and to sell sites on the healthier soils I have named at prodigious prices; thus the natural tendency is to drive the working classes to the less healthy land. The time is arriving when it will not be possible for any individual to decide where hundreds of his neighbours shall or shall not live, nor what they shall pay for the privilege of living at all. When public authorities do their duty, they will take care that all towns and villages are of the Garden type; that houses are not to be crowded together like the cells of bees, but that to every home there shall be a sufficient area of land, abundant width to every street, and trees to contribute to that comfort, that beauty, and that form of health which is associated with Nature and her ways. In some parts of Surrey and elsewhere, where the country is both beautiful and healthy, the workers are forbidden to live, for the owners not only dominate the position, but they claim the air and the landscape, and they would also claim the heavens above them if this were possible.

The small holder of land—I am speaking of the skilled and industrious man—possesses advantages which are foreign to every other individual in the same position of life. He is not merely a producer for the adjacent or distant market, but for his own table. He is his own best customer, and he can feed himself and his family not only at first cost, but with a variety of fresh, pure, simple, and valuable foods, which under no circumstances are obtainable by the working classes of our towns. His pig, fed largely upon the produce of the garden, provides him with pork and bacon; his poultry with eggs, his cow with milk and butter, his garden with fruit and vegetables. If he grows wheat, an acre should not only provide him with practically all he requires, but with bread at almost half the price charged by the baker. Thus he obtains the staple food, not only of better

quality and more appetising flavour, but at such a price as materially reduces the cost of living. If I am told that it does not pay to produce wheat under any circumstances, my reply is that a 36-bushel crop—which is within the reach of any skilled man occupying soil of suitable character and average quality—valued at 28s. per quarter, is worth, with the straw, £8 12s. 6d. under ordinary conditions. Under the circumstances which we are discussing, however, it is worth considerably more. This quantity of wheat should produce 1,595 lbs. of flour, which would cost ·94 pence per pound. The flour, in its turn, should produce 541 4 lb. loaves, at a cost of 2¾d. each, whereas in the village adjacent to the Cudworth Colony the price of bread is sixpence, and it is much inferior to that produced for consumption in my own household. Thirty-six bushels of wheat are equivalent to six bushels per head per annum, or precisely the average quantity required to feed the people of this country. We may therefore assume, providing a fair margin, that an acre of wheat should feed a family of five persons, and with something to spare. The cost of milling, to which no reference has been made, is defrayed by the value of the offal, which the grower supplies to his stock, or which he can sell if he prefers. There is the further advantage that a number of small owners—and at Cudworth they are men of high intelligence—can by combination supply themselves at first cost with fire and light, stock foods and manures, seeds and implements, beef and mutton, and other materials too numerous to mention, while in many ways they can collectively contribute to their individual prosperity.

Small holdings or occupations are not adapted to all soils or districts. I should deprecate any attempt in this direction being made upon chalk with a thin surface, gravel, or sand. Disagreeable as the heavier soils—chiefly with clay subsoil—are believed to be, they are the most substantial, and almost invariably respond to good cultivation; but it is precisely these soils which, owing to the want of attention and labour, have in many districts been neglected or practically abandoned. It has often been stated that the best soil is essential; and certainly in Lincolnshire, as I have seen for myself, splendid crops are

grown by small holders on the rich land which they rent; but these soils can seldom be purchased, and never, I suppose, at prices within reach of the small holder. In every county with which I am acquainted, however, patience and labour have overcome almost every difficulty, and it is largely owing to the work of small owners that millions of acres of poor land are now productive. Nor is it to be expected that success will follow in the footsteps of every man who purchases or rents a small holding. Prosperity does not attend upon every farmer, upon every trader, or every manufacturer, and we have no right to set up a standard for a particular class and condemn a system because success is not reached by all. My own opinion is that the ordinary farms of the country are too large for the means of the occupiers, and that they would realise larger profits on half the area if the land were better tilled. There are, however, many exceptions, and in some cases large farms are imperative.

At Cudworth we have already sold land which, when the houses have been completed, will provide for 30 families, while before the end of summer I confidently anticipate that the land hitherto retained for improvement will have been sold and have provided for an additional eight or ten families, or nearly 40 in all, besides partly supporting a number of outsiders who are engaged as labourers on the estate, where on purchasing we found only three families—those of the bailiff and a couple of farm labourers. I have found the most desirable class of applicants to be those who, as I have already stated, are country born and bred, but who have been engaged in town life, either in the building trade, as artisans, mechanics, gardeners, or as, in some instances, greengrocers and fruiterers. Our conditions afford such men the means of acquiring independence, of improving their physique and that of their families, and of contributing to the general weal as producers of food stuffs; and yet there are some who look with disfavour upon the introduction of our system in their midst, while the local authorities not only show an indisposition to deal with matters which are essential to the well-being of such a community, but they increased the rates on the first

opportunity by nearly 100 per cent. We were, too, driven to build our own houses by the exorbitant demands of local builders, and I am glad to believe, from our year's experience, that we can do so at a saving of one-third in the cost.

The Association was formed in November, 1902, and our first sale commenced in February in the following year and ceased last autumn, when, practically speaking, almost all the available land—that ripe for sale—had been sold. As I have suggested, the remainder, having been improved so far as was possible in a single year by liberal treatment, will be offered in the coming spring. The holdings vary in area from 3 acres to 25 acres in extent, and so far average about 10 acres each. We ask each purchaser to pay down a sum of 10 per cent on the land and an agreed percentage on the houses which are built for them, the balance in each case being payable in twenty half-yearly instalments. Possession is given upon the signing of the agreement, and as rapidly and as agreeably as possible to the wishes of the colonist the house is commenced, the price, the design, and the material having been approved by him. The estate is in a ring fence; on one side it is half a mile from the village and church, slightly more from the post office and the library and reading room. A running stream and a private road pass through the centre of the colony, which is a few miles south of the North Downs, running from Dorking to Reigate, three miles east of Leith Hill, one of the most charming spots in the South of England, and almost midway between the two main lines to the South—that to Brighton and that to Portsmouth. Our first year's work enabled us to pay 4 per cent on the capital which has been invested, while the valuation of the unsold portion of the estate showed a considerable unrealised profit which was not included in the balance sheet.

Brief reference may be made to the extent of the small-holdings system on the European Continent. In Denmark—a small country of 7½ million acres, or 4½ times less area than

Great Britain—150,000 labourers own their own houses, with land attached; while only 35,000 are without land, although owning their houses. There are 172,000 peasants and small farmers who keep less than 30 cows per head, 70,000 of these keeping from one to three cows, with the result that in 25 years the exports of their produce has shown an excess over the imports of the difference between £1,420,000 and £7,790,000. The solution of the land question in Denmark, which has resulted in almost complete ownership by the agricultural class, is co-existent with the prosperity of the people. Four-sixths of the land is owned by the small farming class, one-sixth by the labourers, and one-sixth by large proprietors.

In Holland, with a cultivated area of 5,160,000 acres, 57 per cent of the occupiers are owners, 85 per cent of the farmers occupy per head less than 50 acres of land, and, while there are 169,000 holdings exceeding 2½ acres in area, 143,000 of these are from 2½ to 50 acres in extent, the great majority being under 12½ acres.

In Belgium, with its 6½ million people and 5½ million acres, five-sixths of the land is under the spade or plough. There are 829,000 holdings, and of these 634,000 are under 5 acres in extent. There are, in a word, 715,000 small holders occupying less than 10 acres of land per head, and of these 315,000 are owners or part owners.

In Germany, with 80 million acres of cultivated land, there are over 5½ million separate holdings. Of these, nearly 3¼ million are under 5 acres, while 4¼ million are under 12½ acres and 5¼ million under 60 acres. Thus it is that small farmers cultivate 45½ per cent of the agricultural land. Even amongst the larger farms, those from 50 to 247 acres, the average area is only 86 acres, so that small farming is practically conducted in Germany upon 76 per cent of the soil area. In Great Britain there are less than 120,000 holdings between 1 and 5 acres, and many of these are occupied as accommodation lands; while in

Germany there are 1,382,000 holdings between $1\frac{1}{4}$ and 5 acres Let us now compare the position of the owners in the two countries—Germany and Great Britain:—

Size of Holdings.	Germany.		Great Britain.	
	Occupied wholly or in part by Owners.	Occupied by Tenants.	Occupied wholly or in part by Owners.	Occupied by Tenants.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
5 to 50 Acres	96·5	3·5	15·8	84·2
50 to 500 Acres	95·8	4·2	14·1	85·9
500 Acres and over	77·7	22·3	30·9	69·1

The above figures teach us that while the German farmer owns the land, the British farmer rents it. The figures have been arranged to correspond as nearly as possible; but it may be mentioned that the system of grouping, owing chiefly to the difference in the system of land measurement, is not precisely the same.

In France, with $85\frac{3}{4}$ million acres under cultivation, there are 5,618,000 holdings, of which 4,190,000, or 75 per cent, are owned by the occupiers, and these farms average 10·8 acres each. The French owner-occupier monopolises $45\frac{1}{4}$ million acres. In this country he is in possession of only 4,640,000 acres, while the farms occupied by owners in Great Britain number only 61,000. In France the tenants number 19 per cent; in Great Britain they number $84\frac{1}{2}$ per cent. Something like one-half of the day labourers in France own and occupy land.

In Austria 53 million acres out of 75 millions or thereabouts —about 71 per cent—are in the hands of small proprietors, only 8·7 per cent being owned by large proprietors; but the two terms hardly apply to our own system, for the small proprietors own considerable areas of forest or mountain pasture of little value. In Luxemburg, a duchy with an area less than that of either of our 15 largest counties, only 650,000 acres, and a population equal only to that of a big English city, there are no less than 80,000 separate proprietors, farming an average of $7\frac{1}{2}$ acres each.

A few years ago there were 76,000 of these people owning less than 25 acres each, and yet there are 358 agricultural syndicates in the 500 villages of the duchy, the men having combined for mutual support, protection, and assistance, both in buying and selling, and their success is almost equal to that of the Danes.

The fact that a yard of land can be purchased under our system for the price of a glass of beer, and paid for by instalments, and that there is an increasing number of persons capable of cultivating it and of repopulating our rural districts to a large extent, should be a sufficient inducement to all who have the means, and who desire to be of service to their country, to come to their assistance. I claim that from a commercial standpoint there can scarcely be a much safer form of investment; that from a patriotic point of view there are few objects more deserving or better calculated to prove advantageous to the prosperity of our country or the physical welfare of our people; and that from a moral point of view those who are rendering assistance to their less fortunate but deserving fellow-men are not only providing a happier, brighter, and more prosperous future for them and their families, but are doing a glorious service in their day and generation.

THE

MANCHESTER STATISTICAL SOCIETY.

ESTABLISHED 1833.

REPORT OF THE COUNCIL

FOR THE SESSION 1903-1904.

The first Ordinary Meeting of this Session was held on November 11th, 1903, when Mr. F. Merttens (President of the Society) read the first part of a paper on "Productivity, Protection and Integration of Industry," the conclusion of the paper being read on November 19th.

At the five subsequent Ordinary Meetings the following papers were read, viz., by—

Mr. C. H. Wyatt, M.A , entitled "The History and Development of the Manchester School Board."

Mr. F. Brocklehurst, M.A., entitled "Some Problems of Local Government."

Mr. J. Arthur Hutton, entitled "The Work of the British Cotton Growing Association."

Mr. Barnard Ellinger, entitled "Value and Comparability of English and German Foreign Trade Statistics."

Mr. Jas. Long, entitled "The Garden Village of the Small Holdings Association."

The Council desire to tender their best thanks to the readers of the above papers, and also to those who have made presentations to the Society's library.

The average attendance of members and friends at the ordinary meetings has been 39.

The Council deeply regret the loss by death, during the past year, of Mr. William Fogg, who was President of the Society 1892 to 1894; and also of Mr. Max Hesse, who had been a member of the Council of the Society for many years.

Mr. T. B. Moxon has been elected Trustee in the place of the late Mr. T. R. Wilkinson.

Fourteen new ordinary members have been elected during the year, the number now on the roll being 207.

The Treasurer's financial statement appended hereto shows a balance in favour of the Society of £400 10s. 4d.

June 24th, 1904.

THE MANCHESTER STATISTICAL SOCIETY.

Dr. Treasurer's Statement of Receipts and Payments for the Session 1903-1904. Cr.

	£	s.	d.	£	s.	d.
To Balance brought from last year, viz.:—						
Salford Corporation Bond...	300	0	0			
Bank Balance, June 26, 1903	102	5	8			
				402	5	8
,, Admission Fees				7	17	6
,, Subscriptions: —						
Arrears	4	4	0			
Annual, 1903-4.....	97	13	0			
				101	17	0
In advance, 1904-5				0	10	6
,, Interest on Salford Corporation Loan				9	13	2
,, Bank Interest				2	0	10
,, Sundry Receipts				0	2	9
				£524	7	5

	£	s.	d.	£	s.	d.
By Transactions and Index.....				64	8	5
,, Rent of Rooms.....				10	10	0
,, Annual Dinner Expenses ...	70	0	9			
Less Sale of Tickets	59	17	0			
				10	3	9
,, Teas at Ordinary Meetings				11	15	10
,, Circulars, Postages, and Stationery.....				19	5	3
,, Books Purchased.....				1	16	6
,, Secretaries' Account (Postages and Petty Expenses)				5	17	4
,, Balance carried forward, viz.:						
Salford Corporation Bond...	300	0	0			
Bank Balance, 24th June, 1904.....	100	10	4			
				400	10	4
				£524	7	5

Audited and found correct,

T. C. MIDDLETON,
Chartered Accountant.

29th June, 1904.

MANCHESTER STATISTICAL SOCIETY.

(ESTABLISHED 1833.)

LIST OF OFFICERS OF THE SOCIETY,

SESSION 1903-1904.

President:

FREDK. MERTTENS.

Vice-Presidents:

E. J. CARLISLE, M.A. | F. BROCKLEHURST, M.A.

Treasurer:

JOHN MATHER.

Honorary Secretaries:

THEODORE GREGORY. | HERBERT HEAPE, M.A.

Auditor:

THOS. C. MIDDLETON, J.P.

Librarian:

CHARLES W. SUTTON.

Ordinary Members who have passed the Chair:

ROBERT MONTGOMERY.
EDWIN GUTHRIE.
W. H. S. WATTS.
Rt. Rev. Dr. L. C. CASARTELLI.
ELIJAH HELM.
THOS. B. MOXON.
GEO. H. POWNALL.
Professor A. W. FLUX, M.A.
SIR W. H. HOULDSWORTH, BART., M.P.

Ordinary Members of Council:

A. H. BOOTH.
W. BUTTERWORTH.
Prof. S. J. CHAPMAN, M.A.
NOAH KOLP.
JAS. NIVEN, M.A., M.B.
JAMES OSTLER.
FRED SCOTT.

Trustees:

W. H. S. WATTS. | E. J. CARLISLE, M.A.
THOS. B. MOXON.

The Manchester Statistical Society.

ESTABLISHED 1833.

LIST OF PAST PRESIDENTS.

Benjamin Heywood	1833-4
Lieut.-Col. Shaw Kennedy	1834-6
Rev. Edward Stanley	1836-7
Thomas Ashton	1837-9
Shakespeare Phillips	1839-41
William Langton	1841-4
John Roberton, M.D.	1844-7
Samuel Robinson	1847-9
Henry Houldsworth	1849-50
William Neild	1850-51
Robt. N. Philips	1851-3
James Heywood	1853-5
William Metcalf	1855-7
Rev. C. J. Richson, M.A.	1857-9
Daniel Noble, M.D.	1859-61
Edward Herford	1861-3
Alfred Aspland, M.D.	1863-5
David Chadwick	1865-7
William Langton	1867-9
William Stanley Jevons, M.A.	1869-71
John Mills	1871-3
Dr. John Watts	1873-5
Thomas Read Wilkinson	1875-7
Thomas Dickins	1877-9
Elijah Helm	1879-81
Henry Baker	1881-3
John Slagg	1883-4
Robert Montgomery	1884-6
Thos. B. Moxon	1886-8
Edwin Guthrie	1888-90
J. E. C. Munro, LL.D.	1890-92
William Fogg	1892-4
W. H. S. Watts	1894-6
George H. Pownall	1896-8
Right Rev. Dr. L. C. Casartelli	1898-1900
Professor A. W. Flux, M.A.	1900-1901
Sir W. H. Houldsworth, Bart., M.P.	1901-1903

MANCHESTER STATISTICAL SOCIETY.

LIST OF ORDINARY MEMBERS.

JUNE 29TH, 1904.

Elected.

1895 Abbott, T. C., Strutt Street, Manchester.
1903 Adams, W. G. S., M.A., 9, Beaconsfield, Derby Road, Withington.
1895 Aldcroft, W. H., Refuge Assurance Co. Limited, Oxford Street, Manchester.
1898 Angell, John, F.P.S., Withington.
1900 Arnold, John J., Haworth's Buildings, Cross Street, Manchester
1892 Arnold, W. A., Westbourne, Hale, Cheshire.
1892 Ashworth, Wm., 45, Spring Gardens, Manchester.
1901 Atthill, R. H. M., Williams Deacon's Bank, Mosley Street, Manchester.

1882 Bailey, Sir Wm. Hy., Sale Hall, Sale, Cheshire.
1892 Balfour, Right Hon. Arthur J., M.P., 4, Carlton Gardens, London, S.W.
1879 Ballantyne, Major Robert, Crumpsall.
1879 Barclay, Robert, 1, Dickinson Street, Manchester.
1900 Barclay, Robert Noton, 1, Dickinson Street, Manchester.
1887 Bardsley, Samuel, Manchester and County Bank, Manchester.
1869 *Beardsall, Francis E. M., 42, Winfield Road, Urmston.
1900 *Beardsall, Frank, 54, Beyer Street, Gorton.
1889 Behrens, Chas., Holmacres, Dunham Massey.
1875 Behrens, Gustav, 36, Princess Street, Manchester.
1890 Behrens, Oliver P., 22, Oxford Street, Manchester.
1894 Bell, Joseph, 2, Portland Street, Manchester.
1881 Bennie, Andrew, District Bank, Spring Gardens, Manchester.
1901 Bennion, Edward, Swiss Villa, Bowdon.
1898 Birdsall, George Bradshaw, Wendelholme, Whalley Range, Manchester.
1900 Blake, George Ingle, Wythburn, Brooklands.
1884 Blakeley, Robert P., Church Croft, Whalley Range, Manchester.
1888 Bles, A. J. S., Palm House, Park Lane, Higher Broughton.

1894 *Booth, Arthur H., Williams Deacon's Bank, Manchester.
1900 Bowley, Arthur L., M.A., Lynwood, Southern Hill, Reading.
1895 Bradley, Dr. F., 6, St. James's Square, Manchester.
1869 Broadfield, E. J., Roseleigh, Prestwich, Manchester.
1898 Brocklehurst, Frederick, M.A., 5, St. James's Square, Manchester.
1883 Broderick, Lonsdale, 104, King Street, Manchester.
1877 Broome, Joseph, 6, St. Peter's Square, Manchester.
1891 Brown, Wm., 293, Great Clowes Street, Higher Broughton.
1862 Browning, Thomas, 18, Booth Street, Manchester.
1883 Bryant, Jesse, Sunnyside, Higher Broughton.
1894 Butcher, Sam. Foster, Hart Lea, Holcombe, Ramsbottom.
1903 Butterworth, Walter, Lea Hurst, Bowdon.
1900 *Byrom, James, Heaton Grove, Bury.

1893 Carlisle, Ernest J., M.A., 20, St. Ann's Square, Manchester.
1904 Carter, R. A. D., Rushford, Levenshulme.
1892 Casartelli, Right Rev. Dr. L. C., St. Bede's College, Alexandra Park, Manchester.
1901 Chapman, S. J., M.A., 9, Beaconsfield, Derby Road, Withington.
1904 Chorlton, J. Clayton, Piccadilly, Manchester.
1876 Chorlton, Thomas, 32, Brazennose Street, Manchester.
1876 *Clegg, James W., Lowton Grange, Newton-le-Willows.
1876 *Clegg, Robert Joseph, Holbeck Ghyll, Windermere.
1901 *Corbett, John R., 9, Albert Square, Manchester.
1899 Cross, E. J., 37, Bishop Street, Moss Side.

1904 Dowdall, J. B., Woodlands Hall, Crumpsall.
1901 Drake, Sydney, Kilmorey, Whitehall Road, Brooklands.
1899 Dreyfus, Dr. C., Claremont, Wilbraham Road, Fallowfield.
1889 Drummond, Peter, Eversley, Cheadle Road, Cheadle Hulme.
1902 Dutton, Thomas, 14, Yarburgh Street, Manchester.

1900 Eckhard, Gustav, Reiss Bros., 11, Quay Street, Manchester.
1894 Eggington, Thomas, J.P., Heidelberg House, Barlow Moor Road, Didsbury.
1900 Ellinger, Barnard, 28, Oxford Street, City.
1901 Ellinger, Martin, 28, Oxford Street, Manchester.
1894 Emmott, Alfred, M.P., Woodfield, Oldham.

1876 Fletcher, A. J., Union Bank Limited, York Street, Manchester.
1897 Follows, F. W., Froxmer Street, Gorton.
1875 Fraser, W. M., 6, Pembridge Square, Bayswater, London, W.
1889 Fraser, Drummond, London City and Midland Bank Limited, Manchester.
1901 Frischmann, Adolph, The Manchester Exchange and Investment Bank, John Dalton Street, Manchester.

1898 Garnett, J. P., 22, Booth Street, Manchester.
1877 Gartside, J. H., 2, Faulkner Street, Manchester.
1894 Gibson, Robert, J.P., Montague House, Chester Road, Old Trafford.

1888 Gillies, Andrew A., 46, Brown Street, Manchester.
1901 Gleave, Samuel, Pigott's Court, Corporation Street, Manchester.
1894 *Godlee, Francis, 8, Minshull Street, Manchester.
1902 Goulty, W. Howard, 37, Brown Street, Manchester.
1903 Grant, Alex., 78, King Street, Manchester.
1897 Greenhow, J.H., Glebe Lands, Bowdon.
1894 Greenough, Thomas Rigby, Beechwood, Leigh.
1888 Gregory, Theodore, 3, York Street, Manchester.
1877 Guthrie, Edwin, 71, King Street, Manchester.

1894 *Hague, Thos. Scholes, Prospect House, Westwood, Oldham.
1893 Hall, J. E. R., Williams Deacon's Bank, Atherton.
1894 Hall, Jas. W., 28, Oxford Street, Manchester.
1900 Halsall, Frank, 45, Spring Gardens, Manchester.
1904 Harrison, Joseph, 32A, Brown Street, Manchester.
1894 Harwood, John, J.P., Woodleigh, Heaton.
1881 Haworth, G. C., 35, Dale Street, Manchester.
1901 Healy, John, Barton Grange, near Preston.
1903 Heape, Herbert, M.A., 10, Albert Square, Manchester.
1865 Helm, Elijah, Chamber of Commerce, Manchester.
1898 Hesse, Frank R., Lindores, Barlow Moor Road, Didsbury.
1892 Hewit, R. P., 46, Princess Street, Manchester.
1901 Hewit, Forrest, 55, Portland Street, Manchester.
1894 Hewitt, David B., J.P., Oakleigh, Northwich.
1897 Heys, Richard Theodore, Dorset House, Heaton Chapel.
1900 Heywood, Charles J., Chaseley, Pendleton.
1877 *Heywood, Harvey, Spring Vale, Middleton.
1897 Hicks, Rev. A. S., M.A., 769, Rochdale Road, Harpurhey.
1888 Hicks, George, 19, Pall Mall, Manchester.
1878 Holden, Edward H., London City and Midland Bank, London.
1901 Holden, George Pickup, Oakleigh, Bolton Road, Darwen.
1904 Holt, Edward, J.P., Woodthorpe, Bury Old Road, Prestwich.
1895 Hooley, Cosmo C., Davyhulme.
1883 Horsfall, T. C., Swanscoe Park, near Macclesfield.
1892 Houldsworth, Sir W. H., Bart., M.P., 49, Spring Gardens, Manchester.
1904 Hutton, J. Arthur, 29, Dale Street, Manchester.

1879 Jackson, George Brindley, 7, Brazennose Street, Manchester.
1901 Jacoby, Gustav, 46, Faulkner Street, Manchester.
1897 Johnson, James, 2a, China Lane, Piccadilly, Manchester.
1902 Joynson, Hicks W., 26a, Bryanston Square, London, W.

1869 Kemp, Francis, Williams Deacon's Bank, Manchester.
1902 Kendall, John, J.P., Moorlands, Sale.
1902 Kiddle, Rev. J. W., 63, Edge Lane, Stretford.
1881 Kinch, Walter S., Burtholme, Worthington, near Wigan.
1889 Kolp, Noah, Woodthorpe, Victoria Park, Manchester.
1903 Kullmann, Julius, 5, Hall Street, Manchester.

1894 Laidlaw, Adam, 18, London Road, Manchester.
1890 Langdon, E. H. L., 131, Palatine Road, Didsbury.
1895 Leaf, Alfred E., Church Bank, Richmond Road, Bowdon.
1888 Leigh, Sir Joseph, "The Towers," Didsbury.
1895 Lynch, Rev. P., St. Wilfrid's, Hulme.

1901 Macara, C. W., 33, York Street, Manchester.
1898 McCabe, D., J.P., 24, Chapman Street, Oldham Road, Manchester.
†*McConnell, J. W., Prestwich, Manchester.
1904 McNiel, Henry, F.S.S., 18, Exchange Street, Manchester.
1894 Mandleberg, G. C., Broughton Park, Manchester.
1892 Marx, Charles, 30, Dickinson Street, Manchester.
1892 Mason, S., Manor House, Didsbury.
1900 Mather, Chas. E., 8, King Street Manchester.
1889 Mather, John, 8, King Street, Manchester.
1888 Merttens, F., 76, Newton Street, Manchester.
1881 Middleton, Thomas C., 10, Marsden Street, Manchester.
1872 Montgomery, Robert, Bank, St. Ann Street, Manchester.
*Moorhouse, Right Rev. Dr., Poundisford Park, Taunton.
1871 Morell, J. C., c/o W. W. Tomlins, 4, St. Ann's Square, Manchester.
1875 Moxon, Thomas B., Lancashire and Yorkshire Bank, Manchester.
1877 Murray, Adam, Hazeldean, Kersal.
1898 Murray, James, Disley, near Stockport.

1894 Nairne, W. H., 64, Bridge Street, Manchester.
1900 Nasmith, Chas. W., 40, Brazennose Street, Manchester.
1891 Needham, C. T., Needham's Chambers, Old Millgate, Manchester.
1894 *Neild, Charles, Chapel Walks, Manchester.
1894 *Neild, Edward, Chapel Walks, Manchester.
1894 Nicholson, W. H., 372, Stockport Road, Levenshulme.
1898 Niven, Dr. Jas., Officer of Health, Town Hall, Manchester.
1878 *Nix, E. W., 77, Lombard Street, London, E.C.
1894 Nixon, Alfred, 7, Oak Road, Sale.
1876 Nuttall, Harry, Messrs. J. A. Bremner and Co., Albert Street. Manchester.

1898 Oppenheim, F. S., Winter Buildings, St. Ann Street, Manchester.
1881 Oppenheim, S., Parkfield, Didsbury.
1890 Ostler, James, Northern Assurance Buildings, Albert Square, Manchester.

1904 Parsons, J. G. C., the Royal Exchange, Manchester,
1900 Paterson, Edward, 45, Spring Gardens, Manchester.
1897 Peel, F. W., The Bank of England, Manchester.
1894 *Philips, Herbert, J.P., Sutton Oaks, Macclesfield.
1879 *Philips, William M., 35, Church Street, Manchester.
1894 Platt-Higgins, Frederick, M.P., Holmleigh, Bowdon.
1900 Pollitt, Joseph S., Manchester and County Bank Limited, Blackburn.
1900 Poock, Rev. Anselm, St. Bede's College, Manchester.
1876 *Pownall, George H., Williams Deacon's Bank, 20, Birchin Lane, London, E.C.
1896 Pownall, A. H., 42, Spring Gardens, Manchester.
1898 Preston, E. H., 34, Brazennose Street, Manchester.
1904 Price, Harry Lloyd, Demesne Road, Whalley Range, Manchester.
1894 Provand, A.D., M.P., 2, Whitehall Court, London, S.W.

1896 Ralphs, Samuel, Queen's Buildings, St. Peter's Square, Stockport.
1898 Ramsbottom, Robert, 81, Market Street, Manchester.

1900 Rayner, John, Heaton Norris.
1880 Reynolds, J. H., Municipal School of Technology, Manchester.
1895 Rhodes, George, 78, King Street, Manchester.
1903 Ritchie, Dr. A. Brown, Manchester Education Committee, Deansgate, Manchester.
1879 Roberts, John William, 21, Portland Street, Manchester.
1900 Rodier, James Paillet, Isca, West Didsbury.
1873 Rooke, George, Moorside, Sale.
1894 Ross, Frederick B., Cromford Court, Manchester.
1894 Rothwell, William Thomas, J.P., Newton Heath, Manchester.
1896 Russell, G. H., 1, Fennel Street, Manchester.

1904 Schwarz, Franz, 17, Nicholas Street, Manchester.
1898 Scott, A. H., Plymouth Grove, Manchester.
1894 Scott, C. H., Heaton Mersey.
1871 Scott, C. P., M.P., *Guardian* Office, Manchester.
1878 Scott, Frederick, 33, Brazennose Street, Manchester.
1900 Scrimgeour, Jas., Starr Cliff, Great Lever, Bolton.
1900 Serjeant, John W., North Drive, St. Annes-on-Sea.
1904 Shann, T. Thornhill, J.P., 83A and 87A, Fountain Street, Manchester.
1897 Simpson, Wm., 8, Minshull Street, Manchester.
1888 *Stevens, Marshall, 18, Exchange Street, Manchester.
1888 Stevenson, Charles, 9, Albert Square, Manchester.
1888 Stockwell, Richard B., 52, Brown Street, Manchester.
1879 Sutton, Charles W., Reference Library, King Street, Manchester.
1897 Swallow, J. H., Oak Cottage, Pendlebury.

1887 Tattersall, William, 35 and 36, *Examiner* Buildings, Strutt Street, Manchester.
1877 Taylor, G. H., Holly House, 235, Eccles New Road, Salford.
†Taylor, J. E., *Guardian* Office, Manchester.
1897 Thackray, Edward, City Treasurer, Manchester.
1892 Thewlis, Jas. H., 17, Church Street, Manchester.
1904 Tipping, J. H. Atherton, M.A., LL.M. Camb., 48, King Street, Manchester.
1883 Tipping, William, District Bank, Spring Gardens, Manchester.
1885 Tucker, Thomas Ford, 100, King Street, Manchester.

1876 Watts, W. H. S., Rose Lea, Longfield, Urmston.
1870 *Welton, Thomas A., 22, Palace Road, Streatham Hill, S.W.
1894 Whitelegg, James, 109, Princess Street, Manchester.
1894 Wigley, J., 29, Blackfriars Street, Manchester.
1904 Wilkinson, William, The Limes, Victoria Park, Manchester.
1897 Williams, John, Assistant Treasurer, Town Hall, Manchester.
1894 Williamson, George, 37, Brown Street, Manchester.
1900 Wilson, William George, 35 and 36, *Examiner* Buildings, Strutt Street, Manchester.
1894 Womersley, Frederick, Brown Street, Manchester.
1874 Woodhouse, S. T., Queen's Building Society, John Dalton Street, Manchester.
1895 Woodhouse, Wm., 17, Cooper Street, Manchester.
†Worthington, Thomas, 46, Brown Street, Manchester.
1894 Wyatt, Chas. H., Chelford.

CORRESPONDING MEMBERS.

Bodio, Signor Louis, Rome.
Boissevain, G. M., Amsterdam.
Bourne, Stephen, 5, Lansdown Road, Lee, S.E.
Chervin, Dr. Arthur, Paris.
De Foville, M. Alfred, Paris.
Engel, Dr., Statistical Department, Berlin.
Erben, Professor Joseph, Statistical Bureau, Prague.
Flux, A. W., M.A., Macgill University, Montreal.
Foxwell, Professor H. S., 1, Harvey Road, Cambridge.
Giffen, Sir Robert, K.C.B., LL.D., F.R.S., 40, Brunswick Road, Hove, Brighton.
Gibson, A. H., Crofton, near Wellington, New Zealand.
Greven, H. B., Leyden.
Hansen, Professor Falbe, Copenhagen.
Hayter, Henry H., Govt. Statist, Melbourne.
Körosi, Herr Josef, Buda-Pesth.
Level, Gen. Andres A., Venezuela.
Mercer, Right Rev. J. E., D.D., Bishop of Tasmania, Tasmania.
Palgrave, R. H. Inglis, Great Yarmouth.
Tatham, Dr. John, Somerset House, W.C.

NOTE.—*Those marked thus * are life members.*

Those marked † were elected prior to 1860.

N.B.—Members are requested to inform the Secretaries (at 3, York Street, Manchester) of any change in their address.

INDEX TO TRANSACTIONS.

Session 1903-4.

By THEODORE GREGORY, Hon. Sec.

British Cotton-growing Association, J. Arthur Hutton on the work of the, 109; importance of the future supply of cotton, 110; sources of supply, 111; slow increase of Indian crop, 112; American crop stationary, 112; distribution of spindles, 113-4; consumption of cotton, 115; proportion of cotton used per spindle in Great Britain and on the Continent, 116; scarcity of cotton, 117; will the American supply increase? 118; the origin of the British Cotton-growing Association, 119-20; its work in British India, 121; the West Indies, 122-3; Egypt, 124; British East Africa and Nyassaland, 125-6; Rhodesia and Nigeria, 127; Gambia, 128; Sierra Leone, 129; Gold Coast Colony, 130; Lagos, 131; Southern Nigeria, 132; advantages of Northern Nigeria, 133; cost of production, 134-5; financial support necessary, 136; model farms, 137; the future of the Association, 138.

Brocklehurst, F., M.A., on Some Problems of Local Government, 89.

Ellinger, Barnard, on the Value and Comparability of English and German Foreign Trade Statistics, 139.

English and German Foreign Trade Statistics, Barnard Ellinger on the Value and Comparability of, 139; how the English figures are compiled, 139-40; ultimate destination, 140; goods for Germany shipped *via* Belgium or Holland, 141; English figures compared with those of foreign countries, 141; inaccuracy of the English returns of value, 142-4; how the German returns are compiled, 145; comparison

of English and German figures, 146-7; how the differences are caused, 148-9; German and English returns of imports and exports, 1898-1902, 150-4; English and foreign returns of English imports, 154-5; discrepancies considered, 156; how the returns might be improved, 157-8.

Garden Village of the Small Holdings Association, James Long on the, 159; the unemployed problem, 159; the lot of the agricultural labourer, 160; the small-holdings movement, 161; the results anticipated, 161-3; requirements for a garden village, 164; the Cudworth Colony, 165; the small land owner, 166; and market gardener, 167; what an acre of wheat should produce, 169; the class of applicant, 170; description of the Cudworth Colony, 171; small holdings in Denmark, 171; in Holland, Belgium, and Germany, 172; in France and Austria, 173.

Hutton, J. Arthur, on The Work of the British Cotton-growing Association, 109.

Local Government, F. Brocklehurst, M.A., on Some Problems of, 89; municipal enterprise, 90; powers to provide gas, water, docks, milk for infants, 90-1; street trading regulations, 92; prevention of consumption, 92; provision of education, concerts, telephones, electricity, etc., 93-4; smaller committees desirable, 95; type of representatives, 96-7; business experience required, 98; highly-skilled officials, 99; employés with votes, 100; professional auditors, 101; instead of elective auditors, 102; amalgamation or federation of local authorities, 103-5; their relations with Parliament, 106; increased power for central authorities, 107-8.

Long, James, on The Garden Village of the Small Holdings Association, 159.

Manchester School Board, History and Development of, by C. H. Wyatt, M.A., 69; its formation, 69; the first School Board Election, 70; compulsory attendance, 71-3; average attendance in 1870 and 1902, 73; criminally neglected children and the Industrial Schools Act, 1866, 73-4; Day

Industrial School, Ancoats, 74; license and control of children street traders, 75; higher grade schools, school architecture, 76; evening continuation schools and women's institute, 77; commercial education, evening schools, 78; improved instruction, 79; education of feeble-minded children, 80; underfed school children, free dinners, 80; school savings banks, 81; improvement of physical and mental condition of scholars, 81; appointment of medical officer, 82; summary of the work of the Manchester School Board, 82-3; some old members of the Board, 84; Mr. Michael Sadler on the work of the School Boards, 85; prospects for education in the future, 86-7.

Merttens, Frederick (President), on Productivity, Protection, and Integration of Industry, 1.

Productivity, Protection, and Integration of Industry, Frederick Merttens on the, 1; foreign competition, 2; imports are paid for by exports, 3; a concrete illustration, 4; the conditions of industrial productivity, 5; industrial development of the United States, Germany, and the United Kingdom, 6; their increase in population and in foreign trade compared with France, 8; the great prosperity of the United States explained, 9; the law of "diminishing returns" illustrated, 10; why our production of corn has decreased, 10; labour deflected to more profitable occupations, 11; statistics of paupers, convicted criminals, and unemployed, 11; why Lancashire has prospered, 12-13; the law of "increasing returns," 14; industrial productivity, 15; in India, 16; in Germany, 17; Germany described by an American observer, 18-20; the evils of protection, 21; agricultural production abroad, 22-3; foreign superiority in the woollen industry, 24; in the pottery trade, 25; owing to greater productivity, 26-8; German and English workmen, 29; the danger of protective duties, 30-1; how flour mills have improved, 32; evils of retaliation, 33; tariff wars, 34; foreign competition benefits the consumer, 35; the reversal of our fiscal policy would give a bounty

to our foreign rivals, 36; and injure us, 37; how American shipping decayed, 38; the economic disadvantage of high taxation, 39; of royalties, 39; of high railway rates, 40-1; of excessive freight charges, 42; of fire insurance rates, 43; English deficiencies in education, 43-4; the unhealthy conditions of town life, 46; indifference and trade unionism check production, 48-9; advantage of Arbitration Boards, 50; legislation required to promote productivity, 50; why England's industrial productivity is reduced, 51; advantage of freedom of exchange, 51-2; of combination, 53-5; the evils of monopoly, 57; helpless position of labour, 58; tyranny of capitalists, 59; concentration of wealth, 60; integration of industry essential, 61; State industries in Prussia, 62; want of competition in railway and shipping transport, 63; other monopolies, 64; benefit of Government management, 65; and municipal management, 66; social revolution, 67.

WYATT, C.H., M.A., on The History and Development of the Manchester School Board, 69.

TABLES:—

Foreign trade of United Kingdom, Germany, United States, and France, 1882-1891, 1892-1901, 8.

Population of United Kingdom, Germany, United States, and France, 1891 and 1901, 8.

Prussia.—Mining and Blast Furnaces, 1894-5 and 1899, 62.
Forests in 1900, 62.
Revenue of State Forests, 1884 and 1900, 62.
Agriculture in 1900, 62.
National Railways, 1901, 62.

United Kingdom.—Animals in 1874 and 1900, 10.
Land under cultivation, 1874 and 1900, 10.
People employed in agriculture, 1871 and 1901, 10.
Wages of agricultural labourers, 1871 and 1901, 10.

TABLES, *continued*:—

United Kingdom.—Wages excluding agriculture, 1879-81, 1899 and 1901, 12.

Average yield of wheat per acre, 1860-1900, 10.

Average price of wheat per quarter, 1860-1900, 10.

Population 1891 and 1901 compared with Germany, United States, and France, 8.

Foreign trade, 1891 and 1901, compared with Germany, United States, and France, 8.

English and German figures, 1898-1902, compared, 150-4.

Paupers, 1879-81, 1899-1901, 11.

Criminal offenders, 1879-81, 1899-1901, 11.

Unemployed, 1893-4, 1900-1, 12.

Imports of agricultural produce, 22.

Shipping in 1870 and 1901 compared with France, United States, and Germany, 38.

Taxation compared with America and Germany, 39.

Expenditure on armaments compared with Germany and United States, 39.

Royalties on pig iron compared with France and Germany, 39.

Railway rates compared with the United States, France, and Germany, 40.

Spindles in 1895, 1899, and 1903 compared with the Continent, U.S.A., and India, 113.

Cotton consumption in 1895 and 1900, 115.

JOHN HEYWOOD, Excelsior Printing and Bookbinding Works, Manchester.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 105811084

EXTRACTS FROM THE RULES

OF THE

MANCHESTER STATISTICAL SOCIETY.

ESTABLISHED 1833.

PREAMBLE.—The objects of the Manchester Statistical Society are—The collection of facts illustrative of the condition of Society, and the discussion of subjects of Social and Political Economy, totally excluding party politics.

INTERPRETATION CLAUSE.—In these Rules the masculine shall include the feminine gender.

RULE 1.—Every ordinary member shall pay an annual subscrip- [illegible] of half-a-guinea, or may at any time compound for his future [illegible] tions by paying at once the sum of five guineas. Every [illegible] ber shall, on election, pay an admission fee of half-a- [illegible] at members elected at the last ordinary meeting of any [illegible] shall not be charged with the annual subscription for that [illegible] ion.

2.—The annual subscription shall be due in advance on the 1st of October in each year.

3.—Gentlemen distinguished for their ability and zeal in cultivating Statistical inquiries, and living at least twenty miles distant from Manchester, may be admitted as corresponding members. No subscription shall be required from them.

4.—The ordinary meetings shall be held during the Society's session, viz., from the 1st of October to the 1st of July, with intervals not exceeding six weeks between each meeting.

18.—Members are expected to communicate to the Society papers on Statistics, and on subjects of Social and Political Economy, particularly on such as may be of local interest; and the writer of any such paper shall be required to submit it to the Council *a fortnight* before the meeting at which it is to be read. All papers read before the Society shall be deemed to be its property.

NOTE.—The Society's Library is by arrangement with the Corporation of Manchester deposited at the Free Reference Library, King Street, and is open daily. Members desiring to borrow books can do so on obtaining an order from one of the Honorary Secretaries, Theodore Gregory, 3, York Street, and Herbert Heape, M.A., 10, Albert Square.